THE GROWTH OF AMERICAN THOUGHT

THIRD EDITION

by MERLE CURTI
Frederick Jackson Turner Professor of History
University of Wisconsin



TATA McGRAW-HILL PUBLISHING COMPANY LTD.
New Delhi

[illegible]

THE GROWTH OF AMERICAN THOUGHT

Copyright, 1943, 1951, by Harper & Row, Publishers, Incorporated
Copyright © 1964 by Merle Curti

Gift Book 4731 / 12254

All rights reserved.
No part of this book may be used or reproduced in any manner whatsoever without written permission except in the case of brief quotations embodied in critical articles and reviews. For information address Harper & Row, Publishers, Incorporated, 49 East 33rd Street, New York 16, N.Y.

CHECKED 1978

T M H Edition

[illegible] A. C. G. S. [illegible]

CHECKED 2001

Rs. 20.00

CHECKED 1994

Published by Tata McGraw-Hill Publishing Company Limited and
Printed by Mohan Makhijani at Rekha Printers Pvt. Ltd., New Delhi-110015.

Contents

Preface to the Third Edition vii

Introduction x

Acknowledgments xix

Part I. Adaptation of The European Heritage

1. The Christian Heritage 3
2. Legacies to the New Nation 30
3. The Old World Heritage Modified 51
4. Diffusion of the Arts and Sciences 75
5. The Rise of the Enlightenment 98

Part II. The Growth of Americanism

6. The Revolutionary Shift in Emphasis 123
7. The Expanding Enlightenment 149
8. The Conservative Reaction 178

Part III. Patrician Leadership

9. Patrician Direction of Thought 205
10. Nationalism Challenges Cosmopolitanism 225
11. The West Challenges Patrician Leadership 250

Part IV. Democratic Upheaval

12. New Currents of Equalitarianism 285
13. The Advance of Science and Technology 310
14. The Popularization of Knowledge 335
15. New Goals for Democracy 358
16. The Rising Tide of Patriotism and Nationalism 387

Part V. Triumph of Nationalism

17. Cultural Nationalism in the Old South 417
18. The Civil War and Intellectual Life 443
19. The Nature of the New Nationalism 468
20. Business and the Life of the Mind 494

Part VI. Individualism in a Corporate Age

21. The Delimitation of Supernaturalism 517
22. Impact of Evolutionary Thought on Society 540
23. Scholarship and Popularization of Learning 564
24. Formulas of Protest and Reform 588
25. The Conservative Defense 615

Part VII. Diversion, Criticism, and Contraction

26. America Recrosses the Oceans 641
27. Prosperity, Disillusionment, Criticism 667
28. Crisis and New Searches 697
29. American Assertions in a World of Upheaval 730
30. Dialogues in Our Time 752

Bibliography 795

Index 901

Preface to the Third Edition

Conceived and largely written in the 1930s, the original edition of *The Growth of American Thought* assumed that ideas could best be understood in terms of their social context and social utility. Because it also assumed that the life of the mind depends in large measure on the existence and activity of the agencies of culture, it emphasized the role of the church, government, and business, the development of schools, publishing, and libraries, the impact of wars and economic crises. I was well aware that another approach was possible and desirable: one that systematically analyzed ideas in terms of their philosophical foundations, internal structure, and interrelationships. In *The Growth* and in other writings I tried my hand at this approach and urged others, with better training, to probe deeply and systematically into what I called "the interior of ideas." I thought at the time, and still think, that a combination of these two main approaches is highly desirable.

Since the appearance of the second edition of *The Growth of American Thought* in 1951, some scholars have carried the functional approach much further than I did. This has been particularly true of intellectual historians who have been sensitive to the role of American ideas and values in the contest with totalitarianism. But the main emphasis in scholarship has been on the systematic inner analysis of ideas. The only general synthesis that has been largely governed by this approach is Stow Persons' *American Minds* (1958). But a long list of essays and monographs, cited in the new bibliographical note of the present edition, has greatly enriched the literature of American intellectual history through the internal analysis approach. The reaction against the study of movements of thought in social context and in terms of social uses reflects dissatisfaction with the assumption that the instrumentality of ideas is a valid and useful key to understanding them. The reaction also reflects the vogue of the consensus interpretation of American historical

experience, that is, the thesis that conflicts of interest have been less real and important than we commonly believed in the 1930s.

Loss of faith in the role of reason as a major factor in men's experience and potentialities has been natural, if not inevitable, in a world of war, revolution, and violence, a world which testifies to the power of emotion and irrationality. It is not surprising that scholars have recently attached considerable importance to legends, myths, and symbols. The work of Charles Feidler, Henry Nash Smith, John Ward, R. W. B. Lewis, and Marvin Meyers, to cite only a few, reflects this concern, a concern heightened by the fashionableness of Freudian and neo-Freudian theories and by the teachings of many social psychologists. As yet, however, no scholar has made this approach the governing frame of reference of a systematic, comprehensive history of American intellectual and emotional life. Preoccupation with symbols and myths, with rhetoric and appearances, with the need for greater precision in the analysis of units of thought and emotional currents, is reflected in the vocabulary of many younger scholars. One meets again and again such terms as tension, irony, tragedy, search for identity, and alienation.

Although the institutional embodiment of ideas has not been neglected by scholars in the last ten or fifteen years, the main emphasis in recent accounts of American religious, political, economic, philosophical, legal, and scientific thought, has been analytical rather than functional. The latest scholarship has added new, rich, and significant dimensions to the work of pioneers in the field.

In preparing this new edition of *The Growth of American Thought* I considered the possibility and desirability of a drastic reorganization within an essentially different framework. To my surprise I found that in the original edition I had taken into account, however briefly and inadequately, many ideas, approaches, and emphases that have since become popular. The emotional content of culture, as expressed in myths, legends, and folklore, received attention in my earlier work. So too did anti-intellectualism and the related problem of the status and role of intellectuals in American society. Preceding editions also helped to call attention to another theme that has become a major interest—the "image" of America in foreign lands.

Yet it would be immodest and inaccurate to suggest that recent scholarship on these and other subjects has changed our understanding of American intellectual history only slightly. In the present edition I

have tried to take into account the new scholarship and fresh points of view. I have also added a chapter on the intellectual and cultural interests of the 1950s. Whatever its shortcomings, this chapter has profited from the criticisms of my seminars and of friends, particularly Irvin G. Wyllie, Kendall Birr, Fulmer Mood, and Louis C. Hunter, and of my daughter, Martha Wohlforth.

I want to express my appreciation to Gail Bremer, who did tedious checking, and to Mildred Lloyd, who typed and retyped portions of the present edition of *The Growth*. But my main debt is to Raymond J. Wilson who, as my research assistant, carefully analyzed the text of the 1951 edition in relation to the recent monographic and interpretative literature.

Many basic books, old and new, are available to scholars, teachers, and students of intellectual history, often in inexpensive paperback form. Despite this rich supply, I dare to hope that the comprehensive synthesis of *The Growth of American Thought*, together with its revised discussion of specific problems, will guarantee its future usefulness. I hope, too, that the book may continue to suggest themes and problems for investigation.

Merle Curti

January, 1964

Introduction

An account of the growth of American thought involves, in the first place, a study of the growth on American soil of *knowledge* of the physical universe, of human nature, and of social relationships. Since man's precise and tested knowledge of his environment, physical and social, and of himself has been at every point in time subject to varying limitations, he has *speculated* on that which he did not know. These speculative operations, sometimes casual, random, and entirely unorganized, have been transmitted from generation to generation as superstitions and folklore; sometimes they have been systematized as theology and philosophy. In either case such informal notions and beliefs, or organized ideas, properly belong to intellectual history. To knowledge and ideas must be added the values which men and women have held and cherished. The history of knowledge, of speculation and ideas, and of values cannot easily be traced without reference to the institutions especially concerned with making accretions to knowledge and thought and disseminating these. Thus the growth in America of schools, colleges, libraries, the press, laboratories, foundations, and research centers becomes an important condition for the growth of American thought.

Bodies of exact knowledge, patterns of thought, and all the agencies of intellectual life developed in America in relation to their counterparts in Europe. Each generation of Europeans who came to America brought prevailing or dissenting European ideas, brought in greater or less degree special intellectual techniques and the command of bodies of knowledge, brought concepts of the good and the desirable. All these played essential roles in the growth of American thought. Americans, old and new, familiarized themselves with newer intellectal currents in the Old World through travel and study abroad and through reading in the original or in translation reports of scientific discoveries and emerging systems of thought. But even in the seventeenth century, and increasingly with the passage of time, Americans also contributed both knowledge and ideas to Europe.

If the history of the growth of knowledge, thought, values, and the agencies of intellectual life is not to be a mere chronicle, it is necessary to explain, as far as possible, how this growth took place. The factors that have aided and the factors that have retarded it must be considered. The status of knowledge, the tissue of thought, the cluster of values are all at any particular time affected by the physical environment and economy, polity, and social arrangements, all more or less in the process of change. Because the American environment, physical and social, differed from that of Europe, Americans, confronted by different needs and problems, adapted the European intellectual heritage in their own way. And because American life came increasingly to differ from European life, American ideas, American agencies of intellectual life, and the use made of knowledge likewise came to differ in America from their European counterparts. The interrelationships between the growth of thought and the whole social milieu seem to be so close and have been so frequently neglected that this study of American life has tried consistently to relate that growth to the whole complex environment. It is thus not a history of American thought but a social history of American thought, and to some extent a socioeconomic history of American thought.

This emphasis on the relationships between developing ideas and bodies of knowledge on the one hand and other phases of American life on the other imposes certain limitations, if the account is to be encompassed in a single volume. An effort has been made throughout to describe in broad outline the nature of the dominant ideas and to indicate the major contributions made by Americans to exact knowledge. But this study does not purport to provide an exhaustive analysis of the "interiors" of the ideas and systems of thought chosen for consideration. Such analyses, in the manner of Burs's *History of the Idea of Progress* or Lovejoy's *Great Chain of Being*, would indeed be valuable, but they are not a part of the plan of this book. The emphasis chosen has also precluded a full discussion of the development of each of the intellectual disciplines in America. The study is primarily a social history of American thought.

This study of American intellectual life is organized in chronological periods according to ideas which may be thought of as characteristic of the successive eras in that history. Complex and long though the colonial era was, different though American life and thought on the eve of the Revolution were from life and thought in the seventeenth century, the

colonial period nevertheless presents a certain unity. In that period Europeans adapted their heritage of thought and knowledge to the conditions of colonization and to a new physical and social environment. The heritage of Christian thought, of the polite learning of the Renaissance, and of a vast body of folklore was supplemented by that of the Enlightenment which began to make its impact on America in the seventeenth century. The next general period, extending from the rise of the Revolution to the end of the eighteenth century, was marked by the growth of the idea of Americanism. Cultural nationalism, the expanding Enlightenment, and the conservative reaction all contributed to and were in turn affected by the concept of Americanism. The first third of the nineteenth century, roughly, was marked by patrician leadership in thought. This, however, was challenged by the frontier in those decades, and the nationalism inherited from the revolutionary shift in emphasis was challenged by both cosmopolitan and regional ideas and interests. The period extending approximately from 1830 to 1850 was dominated by the democratic upheaval that profoundly affected intellectual life; this was an era in which new currents of equalitarian thought made themselves felt. This was also the golden day of progress and optimism, in which science and technology made great advances, in which knowledge was popularized, and in which patriotic and nationalistic ideas were assimilated to democratic theory.

The period extending roughly from 1850 to 1870 was marked by the triumph of nationalism and business ideology in social and political thought. The cultural regionalism of the Old South was paralleled in the decade prior to the Civil War by the intellectual defense of commerce and industry in the North; these patterns of thought and feeling were opposed as their associated interests were in the Civil War. Appomattox was followed by an upsurge of business ideology and a new nationalism in thought and feeling.

From 1870 or thereabouts to the end of the century the dominant idea was the assertion of individualism in a corporate age of applied science. Science advanced on supernaturalism, and evolutionary thought affected and was affected by the utilitarian ideas and interests that prevailed. At the same time the earlier democratic movement toward the popularization of knowledge continued; the corporate character of the age was reflected in the new emphasis on the professionalization of many areas and levels of intellectual life. At the same time, in the name

of individualism and reform, ideas and systems of thought reflected the challenge implicit in the application of science to life, and these reform and protest ideas stimulated a counterdefense in the name of conservative interests.

In the twentieth century optimism has been subject to diversion, criticism, and contraction. The imperialistic adventure of 1898 and subsequent years and the crusade of 1917 to make the world safe for democracy were followed by disillusionment, criticism, and complacency, and then by renewed optimism in the decade of the 'twenties. But the breakdown in economy during the 'thirties eventuated in new intellectual searches, and the world crisis intensified the widespread pessimism and uncertainty.

No brief is held for the superiority of the organization of this study. With a different set of purposes a different organization would be natural. The fact that a treatment based on leading social attitudes is combined with a chronological division of the subject matter means that a particular person or group, or a given conception or attitude, is often dealt with in different connections in different parts of this book. But this is unavoidable in a work departing as this does from a strictly chronological treatment.

The problem of emphasis, of selection and rejection of materials, and that of chronology have not been the only difficulties encountered. The sources for a study of American intellectual history are abundant —formal treatises by theologians, philosophers, scientists, and social scientists; autobiographies and letters of scholars, published and unpublished; novels, tales, poems, essays, critical reviews in periodicals; records of the agencies of intellectual life, schools, colleges, foundations, learned societies, publishing houses, newspapers, and the like; collections of folklore, folk songs, ballads, and proverbs; literature written and published for the masses—these are only some of the materials available. In some measure this study rests on such materials. But the scope of this undertaking is so vast that by necessity monographic literature bulks large. Of this there is an impressive amount, in spite of the fact that students of American history have long been primarily concerned with political, military, economic, and social activities and institutions.

Even from the start, however, intellectual interests were in some measure represented in historical writing. Edward Johnson, one of

New England's first historians, included in his *Wonder-Working Providence of Zion's Saviour in New-England* (1654) an account of the founding of the churches in Massachusetts Bay and of the religious ideas and controversies that both harassed the founders and added zest to life. A half century later Cotton Mather's *Magnalia Christi Americana* chronicled in detail the lives of the divines, the "afflictive disturbances," and the fortunes of Harvard College. Nor did other colonies lack historians to relate intellectual interests and achievements, or the absence of them. Hugh Jones' *The Present State of Virginia* (1724) is still a valuable source for our knowledge of the agencies of intellectual life in the Old Dominion. Other historians throughout the eighteenth century included in their narratives fragments of intellectual history.

The first monumental work devoted solely to this field appeared in 1803, when the Reverend Samuel Miller, a Presbyterian clergyman of New York, published his two-volume *Retrospect of the Eighteenth Century*. This series of essays on virtually every phase of the intellectual life of Europe in the eighteenth century included surveys of the state of knowledge in the United States and of American contributions to knowledge. With all its shortcomings it was a notable effort and is still useful to the student of the growth of American thought.

The historians of the first half of the nineteenth century were above all else concerned with political and institutional history. In consequence our intellectual past fared badly at their hands. The neglect that it suffered in formal historical writings was in part compensated for by the appearance, beginning in 1829, of a series of anthologies of American literature and by an unbroken interest in the history of American letters. Moreover, in such informal histories as academic orators often provided at the meetings of literary societies or at commencements, our intellectual glory was a favored theme. But the circumstance that Americans had actually created a notable political record, that sectional and party controversies were so absorbing, that our intellectual life was so largely subordinated to other matters, tended to keep that aspect of our past subordinate. The tendency to emphasize political events was subsequently confirmed by the political and institutional interests of scholars trained in the German historical seminars and influenced by such English historians as E. A. Freeman.

The last two decades of the nineteenth century witnessed significant departures from this pattern. John Bach McMaster's first volume of

the *History of the People of the United States* (1883) devoted refreshing attention to intellectual developments and interests, and this emphasis was sustained in subsequent volumes. Eight years after the appearance of McMaster's first volume Henry Adams, in his *History of the United States during the Administrations of Jefferson and Madison,* made an effort to fathom the "American mind" of the early nineteenth century. Edward Eggleston called attention to the need for studying the cultural development of the American people. He did not carry out his full plans, but the appearance in 1901 of *The Transit of Civilization from England to America in the Seventeenth Century* broke new ground. About this time Moses Coit Tyler was bringing to a close his scholarly and comprehensive literary history of the colonial and revolutionary periods, the first volume of which had appeared in 1878.

New European emphases in the historical studies of European development were not without their influence. In England, Green's *Short History of the English People* carried still further the tradition of Macaulay and others in devoting some attention to the social and cultural chapters of the nation's past, and historians of France were following in the same course. The visit to America in 1904 of the German historian, Karl Lamprecht, did much to focus attention on cultural history, broadly conceived. Taking up the work of Dr. John Draper of New York University, who had published in 1863 *The Intellectual Development of Europe,* James Harvey Robinson of Columbia University called the attention of students of American history as well as those in the European field to the history of man's mind as an important means of determining how the past gave way to the present. Evarts B. Greene, Frederick J. Turner, Edward Channing, and, on the Pacific coast, Herbert E. Bolton, all gave attention to the development of intellectual interests.

In the period since the First World War great strides have been made in the study of our intellectual past and this aspect of our history has begun to come into its own. The publication in 1917 and the following years of the *Cambridge History of American Literature* was significant by reason of its scope and scholarship. When the *History of American Life* under the editorship of Dixon Ryan Fox and Arthur M. Schlesinger began to appear in 1927, it was clear beyond doubt that our intellectual history is both richer than anyone had supposed it to be and, furthermore, susceptible of the same scholarly treatment that other aspects of the national life have received.

Yet in view of the emphasis given by historians to political, military, and economic activities, it is still correct to say that intellectual life in the United States, especially in its relation to other phases of history, has been, comparatively speaking, sadly neglected in detail and in general. Only in 1940 was our first history of American democratic ideas made available; and admirable though Ralph Gabriel's study is, it does not cover the whole sweep of democratic thought in America. We have recently had from the hands of Charles and Mary Beard a history of the idea of civilization in the United States, but we are virtually without histories of such ideas as liberty, progress, security, militarism, individualism, and collectivism—ideas now in tumultuous and heated use. It is impossible at present to say with what meanings they have been employed, or what changes in meaning they have undergone in the course of their American experience.

The situation is only slightly better in the area of systematic thought. It is true that we have histories of American philosophic thought, of educational thought, and of political thought; and that we shall presently have from Joseph Dorfman a systematic history of American economic thought. Religious and theological thought in America have also been studied and reported on for certain periods. But these histories of American systems of thought, despite their merits, are not comprehensive. Furthermore, there are no general histories of scientific and technological thought, or of esthetic thought, or of American social thought.

Even more striking is the dearth of studies of the ideas or fragments of larger bodies of thought present in the minds of the great mass of common people or implicit in their behavior. The vast majority of plain people do not, of course, write books or make public addresses or focus their attention in any sustained way on the objects of intellectual interest. Yet popular thought is certainly a phase of American life that bears profoundly on the nature of American democracy and on American destiny itself. A people commonly believed to be noted for its common sense deserves studies indicating what each generation from the beginning has regarded as practical, as common sense. To what extent have the assumptions of what is regarded as common sense been implicit in the behavior of ordinary men and women, and to what extent have they been made explicit by their spokesmen or by writers, orators, and artists?

We have at our command few adequate histories of specific disciplines in the United States—progress of knowledge in the natural sciences, for

example, or in geography, history, or psychology. The studies that do exist are for the most part lacking in comprehensiveness.

Nor have all the histories of knowledge, of thought, and of speculation related the subject matter to changing social, economic, and cultural conditions. In a few cases, it is true, efforts to do so have been made. In this field Vernon L. Parrington was a pioneer. *Main Currents in American Thought* (1927, 1930) related the writings of American men of letters, political leaders, orators, and other figures to the social and economic conflicts in American life, especially to agrarianism on the one hand and to capitalism on the other. Bernard Smith's *Forces in American Criticism* (1939) carried this approach further. In the chapters in *The Rise of American Civilization* and *America in Midpassage* dealing with American cultural interests, the Beards have achieved notable success in the integration of ideas and interests, of cultural values, systems of thought, and bodies of knowledge with the context of which all these are part.

Some may contend that the history of intellectual life in America cannot be written now for the reason that adequate special studies on which a general synthesis must rest have not yet been made. According to one widely held view, efforts to grasp the whole or any part, even in thought, are useless until preliminary inquiries have been completed. In fact, however, monographic studies made without thought about the relations of the special to the general are likely to be arid.

Actually it is not possible, of course, for specialized research and writing to proceed without some reference to thought, however stray and surreptitious such thought may be, about the wider relationships. Since particulars do bear relations to the general, preliminary thought about the problem of these relations, based of course on the knowledge available, can aid in the production of monographs that will be useful as the higher and higher generalizations are reached. To wait until scholars have completed all the requisite special studies is to postpone wider consideration on the assumption that these studies will in fact be completed; such an assumption may or may not be warranted. So to wait is to deprive even particular inquiries of the thought about the problem of the whole, which is available at the present stage in the development of the theme.

The task of writing a social history of American thought may be undertaken, meantime, in the light of present thought and knowledge.

It is a task of such magnitude that the author has no idea that his labors are definitive. He hopes only that they may furnish some suggestions to other historians who will explore this field, and that they may help some readers to achieve a fuller appreciation of our country's past.

June, 1943 M. C.

Acknowledgments

I wish to thank the following publishers for permission to quote from books or periodicals bearing their imprint: Little, Brown and Co. (Oliver Wendell Holmes, Jr., *The Common Law*); Charles Scribner's Sons (William N. Clark, *Sixty Years with the Bible*); Harper & Row (Hamlin Garland, *Main Travelled Roads* and *The Public Papers of Woodrow Wilson*); The Chautauqua Institution (John H. Vincent, *The Chautaqua Movement*); McFadden Publications, Inc., (*True Story*), the Essex Institute (Harriet S. Tapley, *Salem Imprints, 1768-1825*); the University of Maine Studies (Laura G. M. Pedder, ed., *The Letters of Joseph Dennie*); and Constable and Co. (*The Works of Herman Melville*). I also appreciate permission to quote from the *Secret Diary of William Byrd II*, edited by Louis B. Wright and Marion Tinling.

It is impossible to express my specific indebtedness to everyone who has in one way or another contributed to this book. I am indebted to Louis C. Hunter, Charles A. Barker, Richard Hofstadter, William Miller, Thomas C. Cochran, John and LaWanda Cox, and Howard K. Beale for reading the manuscript and for making valuable detailed suggestions and stimulating general criticisms. Charles A. Beard has read the whole manuscript and given it a searching criticism, for which I am very grateful. Guy Stanton Ford has encouraged me throughout the undertaking and has made many helpful suggestions. One or more chapters were read by Clement Eaton, Theodore Hornberger, Theodore Brameld, Fulmer Mood, Erling M. Hunt, Richard Thursfield, Norris F. Hall, and Harold U. Faulkner. I should also like to thank for their comments on the outline or on certain problems which I posed, Kenneth W. Porter, Robert E. Riegel, and Harold J. Laski; my former colleagues at Columbia University, especially Marjorie H. Nicolson, J. Montgomery Gambrill, Arthur E. Bestor, Jr., and George S. Counts; and my colleagues at the University of Wisconsin, especially Curtis P. Nettels and Paul A. Knaplund. As a former student of Arthur M. Schlesinger, I should like to

express my appreciation of the work he has done in this field and to acknowledge the indebtedness which I, with all other students of American intellectual history, owe to him for the high standards he has set. Above all, I am deeply grateful to my wife, Margaret Wooster Curti, who has given the entire manuscript detailed criticisms.

Livia Appel aided in the stylistic revision of part of the manuscript, and Royce Moch and William Hermann checked the quotations in several chapters.

Several libraries have extended unusual courtesies, particularly the Dartmouth College Library, the Wisconsin Historical Society, and the Columbia University Library. I wish to thank Max Farrand, former director of research at the Huntington Library, and the trustees of that institution, for making it possible for me to spend a year at San Marino as Visiting Scholar and Research Associate. Like all other scholars who have worked at the Huntington, I am indebted to the staff for patient, helpful, and intelligent assistance in my researches.

Bernard Gronert helped me in the collection of materials for Chapter 29; I am also indebted to Richard Hofstadter, John Higham, David Fellman, and Robert Riegel, and John Barton for reading this chapter and for making helpful suggestions.

June, 1951

PART I

Adaptation of the European Heritage

I The Christian Heritage

The Old Spirit of New England hath been sensibly going out of the world, as the old saints in whom it hath gone; and instead the return of the spirit of the world with a lamentable neglect of strict piety has crept in upon the rising generation.

—COTTON MATHER, 1702

I was not only taught patience, but also made thankful to God who thus led me about and instructed me, that I might have a quick and lively feeling of the Afflictions of my fellow-Creatures, whose Situation in life is difficult.

—JOHN WOOLMAN, 1774

The Christian tradition, introduced by the first comers, reinforced by nearly all their European successors, and perpetuated by conscious effort, was the chief foundation stone of American intellectual development. No intellectual interest served so effectively as Christian thought to bring some degree of unity to the different classes, regions, and ethnic groups. Whatever differences in ways of life and whatever conflicts of interest separated the country gentry and great merchants from the frontiersmen, poor farmers, artisans, and small shopkeepers, all nominally subscribed to Christian tenets and at least in theory accepted Christianity as their guide. However much French Huguenots, Dutch and German Calvinists, German and Swedish Lutherans, German and Swiss Baptists differed in creed and culture from one another and from the English-speaking Calvinists, Quakers, Anglicans, Baptists, and Catholics, all adhered to a core of common beliefs and values. However widely all

these social and ethnic groups differed in doctrine and form of worship, they all, with certain notable exceptions, shared a common Christian conception of human nature, of social relationships, and of the nature of knowledge and beauty; and all were substantially agreed on the supernatural origin and destiny of man and the supernatural basis of the universe itself.

There were, to be sure, minorities which did not share fully in the Christian heritage: the great majority of the Indians, who were always on the fringe of colonial life rather than part and parcel of it, and the newcomers among the Africans. The latter, though they clung to many of their own religious ideas and though many masters were opposed or indifferent to their Christianization, tended to accept Christianity and to make it in their own way their own religion.

The Jews alone of those who lived in the heart of colonial society clung steadfastly to a non-Christian faith. Yet the tiny Jewish minority that had established synagogues by the end of the colonial era in Newport, New York, Philadelphia, Charleston, and Savannah shared many of the ideas and values of Christians. Christianity had been derived from Judaism, a fact that was greatly emphasized in Puritan thought. All branches of Christianity shared with the Jews the Old Testament, the teachings of which at that time occupied a large place in Christian ideology.

The traditional Christian prejudice toward Jews did not disappear in colonial thought, but it became less marked than in the Old World. The Swedish traveler Peter Kalm saw Jews as possessing equal political privileges with Christians. This was not actually the case. But they usually did enjoy a status superior to that of the Jews in Europe, a situation explained by several factors. The generally tolerant position of Roger Williams and of the Quakers provided oases for the Jews in Rhode Island and Pennsylvania. No doubt their improved status owed something to the fact that they contributed to commercial prosperity in a society in which capital was scarce. The jealousy frequently occasioned by such success was offset in part by the common assumption in a rapidly expanding economy that there was room for everyone to get ahead. More valid than these explanations, however, is the fact that the Jews were so small a minority as to be inconspicuous. Nevertheless they introduced a distinctive element into colonial life.

Clerical Support of Intellectual Life

In the early decades of American experience the clergy, whose duties were multiple and pressing, were the leading representatives of intellectual interests. Some acted as physicians and legal advisers, others taught the young. A surprising number found time to write theological tracts or treatises that stimulated the development of printing presses in the colonies and frequently elicited praise from their colleagues in the Old World. In the later seventeenth century and especially in the eighteenth, when the colonial population became more numerous and society more complex, intellectual functions were more frequently divided and specialized. But even at the end of the colonial era the clergy continued to be a force as intellectual leaders.

This leadership was well exemplified by the role of the clergy in the development of the colonial colleges. Anglican, Lutheran, and Calvinist churches alike insisted on a trained clergy, and hence provision had to be made for their higher education. Harvard and Yale provided the necessary facilities for the New England Congregationalists; the College of New Jersey (Princeton) and the "log colleges" that sprang up in the mid-eighteenth century in the Middle Colonies existed for the Presbyterians, Queens College (Rutgers) for the Dutch Reformed churches, and the College of William and Mary and King's College (Columbia) for the Anglicans. It is true that in Philadelphia, where the Quakers repudiated the need for a trained clergy, a college was launched in 1741 that in some measure represented secular interests; but the other colonial colleges were all founded to give ecclesiastical training. The clergy provided these colleges, including the College of Philadelphia, with the main body of their faculties; and even at the end of the colonial period, when secular interests were stronger than they were a hundred years earlier, many college students were planning a ministerial career.

Intellectual leadership of the clergy was also evident in the support they gave to higher learning outside college halls. The Calvinist, Lutheran, and Anglican clergy in the Middle and Southern Colonies frequently befriended natural science and almost always supported classical knowledge and culture. The learning of the New England clergy is proverbial. In his erudite study, *The New England Mind*, Perry Miller has

demonstrated that the first three generations of Puritan clergymen had immense appetite for learning in almost every field. The intellectual giants of Puritan New England were masters of a profound synthesis of ancient and modern knowledge of the universe, a synthesis tied together by the now all but forgotten Ramist logic. Even after this synthesis of knowledge had begun to crumble, the New England clergyman was regarded as sufficiently learned to instruct college students in all branches of the curriculum. The practice of "rustication," or the residence of a delinquent undergraduate with a country parson who acted as his tutor, survived even in the nineteenth century.

The clergy not only supported higher learning but did much to disseminate knowledge. The conception of a learned clergy capable of expounding the Bible in the light of scholarship and reason implies a sufficiently well-educated laity to follow theological discussions. It is this fact that helps to explain why New England led in supporting secondary education. The New England minister generally continued to supervise the town schools. When the town could not or did not support a Latin grammar school, the minister prepared bookish or ambitious youth for college. In New York the Dutch Reformed church continued its early interest in schools; among the German Pennsylvanians both Henry Melchior Mühlenberg, the Lutheran leader, and Michael Schlätter, the Swiss-born patriarch of the German Reformed sect, devoted much time to establishing and improving church schools. The Moravian bishops at Bethlehem and Nazareth enjoyed wide renown for the excellence of their schools. Nor was the Scotch-Irish Presbyterian clergy negligent in regard to education; in Pennsylvania, New Jersey, and the Carolinas they too were leaders in founding and maintaining elementary and secondary schools. Many Anglican parsons in Maryland and Virginia either conducted schools or taught boys in the rectory. The Quakers had no specially trained clergy; they insisted that, however unlearned and ignorant, any soul could commune directly with the Holy Spirit. Thus they put somewhat less emphasis on secondary education than other Christian groups. But they did not neglect it, and they supported elementary schools.

As promoters of adult education the clergy helped to break down some of the barriers between the learned classes and their less lettered fellows. In founding libraries for the lower and middle classes the Anglican Society for the Promotion of Christian Knowledge spread not only religious

literature but books on mathematics, history, and agriculture. In this connection the pioneer work of Dr. Thomas Bray and his "associates" in Maryland and Virginia is memorable. In New England the custom of printing sermons contributed to public instruction and enlightenment. The sermon dealt not only with matters of faith and morals. The funeral sermon retailed and interpreted news of shipwrecks and other calamities. The ordination sermon was weighted with theological learning, and the election day sermon aimed to advance political understanding and, of course, to influence political action. Finally, the stimulus the weekly sermon provided for household discussion enlarged the mental horizons of many plain people who thus found an intellectual interest in Christianity as well as comfort, support, and social outlet.

The Sources of Christian Truth

No function of the trained clergy was regarded as of equal importance with the exposition of God's Word, for in the last analysis each branch of Christianity fell back on revelation as the only sure path to knowledge and truth. God had spoken and His Word, contained in the Bible, was holy, absolute, and final.

The profound differences in doctrine, worship, and church government that separated the various branches of Christendom were overshadowed by the importance every Christian group attached to the Bible, the Book of Books. Catholics and Anglicans put less emphasis on individual Bible reading than other Christians, but the Bible was their final authority on matters of doctrine and the ultimate source of God's revelation. As such it occupied an indispensable place in church services. The early Puritan prejudice against reading the Scriptures in church services because it smacked of Catholic and Anglican liturgy had begun to disappear before the end of the seventeenth century. The Bible was to be found in almost every Calvinist household that possessed any books at all, and it was read not only once but over and over again. The obligation to read it was the chief reason for universal elementary education in communities dominated by Calvinism. Children sometimes learned their first letters from its pages; and even when they got their start in a catechism, a book of piety, or the highly Biblical *New England Primer*, they were soon graduated to the Testaments. The Bible constituted the chief reading matter

in the German schools maintained in the Middle Colonies by the German Reformed and Lutheran bodies. The children of many Calvinist and Lutheran households could repeat by heart an impressive number of Scripture verses. Among Quakers and Mennonites the Bible or Pastorius' *New Primer*, a thoroughly scriptural handbook, were the mainstays when the young were instructed in the art of reading. The German population could read the Bibles that in 1743 began to issue from the Pennsylvania press of the Dunker Christopher Sower. Anglo-Americans had to depend on imported Bibles until 1777, when the first American edition of the New Testament in the English version was printed.

In the interpretation of the Bible there were wide differences. The historical conception of one true church as the guardian and expounder of God's word governed not only the Catholics and Anglicans but in some measure the Calvinists and Lutherans as well. These churches, either in the Old World or in some part of the New, had enjoyed the prestige and authority of being "established" by law. All emphasized the creed and the catechism or "confession" as the necessary and proper distillation of God's meaning in Holy Writ. These faiths therefore had to set great store on a properly trained clergy capable of using reason and logic in an authoritative way to expound the creeds, the traditions peculiar to the given church, and the Bible itself. But the concept of an historical church and an authoritative clergy as the custodians and interpreters of sacred truth was not universal.

The idea that the individual could determine religious truth on the compulsion of his own subjective intuitions rather than on the authority of a clergy or the traditions of a church was a significant and logical outcome in the seventeenth and eighteenth centuries of the Protestant revolt itself. The teachings of the Cambridge Platonists and much in the Puritan movement were an expression of this general current of thought and feeling. But the Quakers, Mennonites, and related "plain sects" provided the most clear-cut and consistent example of this position. Accepting the Bible as God's revealed word, these groups dispensed with creeds, clergy, and liturgy. They emphasized rather direct, subjective communication of every individual with the Holy Spirit as the authentic way of arriving at the truth.

This aspect of Quakerism reached its highest level in the writings of John Woolman, a simple farmer, tailor, and teacher. Woolman did not reject sensory experience and natural knowledge as important instruments

for understanding human nature and human relations. But he believed that direct personal communication with God enabled man to test, supplement, and revise what he learned by the outward and more obvious processes of knowledge and what he received through others, no matter how authoritatively they might speak, whether on secular or on spiritual matters. Woolman wrote in his *Journal* that "as the mind was moved by an inward principle to love God as an invisible, incomprehensible being, by the same principle it was moved to love Him in all His manifestations in the visible world."[1] The fact that Woolman and his fellow Quakers did not feel the need of learned ministers to interpret religious truths and that he believed in the power of even the most humble among them to speak the tongue of the Spirit, tended to break down the prevailing barriers between the learned and the untutored at the same time that authoritative creeds and priests were rejected as sources of Christian truth.

The emphasis on the religious feelings and intuitions of the individual layman as a source of divine truth, as the way of illuminating the meaning of Scripture, made inroads on churches that attached importance to tradition, a trained clergy, and ecclesiastical authority. Belief in the inspiration of laymen by the Holy Spirit found exponents in early Massachusetts Bay; Anne Hutchinson and Roger Williams defied the theocracy by insisting on the inalienable, God-given right of every individual to search for the Lord's truth in his own soul. Anne Hutchinson's antinomianism was peculiarly subversive of a society founded on orthodoxy and hierarchy. She insisted, in somewhat the same fashion as the Quakers, that God's love was communicated immediately to the regenerate, and that this love served the saint as a guide to action. Thus, no mediation of the clergy was necessary, either for salvation or for right conduct. The theocracy of Massachusetts Bay was able to banish Anne Hutchinson and Roger Williams. But their ideas were not so easily stilled. In the eighteenth century Jonathan Edwards fostered anew the development of the emotional, intuitive, and personal strains in Puritanism. At about the same time the Middle Colonies witnessed the impact of German Pietism on the Lutheran and German Reformed churches, a movement which subordinated intellectualistic theology to personal fervor and piety. In both the Middle and Southern Colonies Presbyterian

[1] Amelia M. Gummere (ed.), *The Journal and Essays of John Woolman* (The Macmillan Co., 1922), 156.

ranks were broken by the rise of a group that emphasized the leadership of the emotionally fervent and redeemed Christian irrespective of his theological training and ordination. Meantime the Baptists and the Methodist group within the Anglican church were making headway in their emphasis on personal feeling as the key to an understanding of God's Word and Will.

These tendencies were all related to the Great Awakening or wave of revivals that swept the colonies in the 1740s. From Maine to Georgia the revivals were preached by men of great feeling and eloquence, many of whom had been inspired by German Pietism or English evangelicalism. The social significance of the Great Awakening will be clarified in a subsequent discussion of the democratic aspects of Christian social thought. Here it is important to emphasize the fact that the Awakening counteracted the growing secularism, rationalism, and skepticism of the eighteenth century on the one hand and on the other challenged the traditionally dominant intellectualistic and authoritarian expositions of Christianity. In kindling the religion of the heart in the great mass of plain people the revivals gave a broader base to the Christian heritage.

Christians differed considerably, and at times vindictively, in their interpretations of the Bible and especially in what they considered the most effective way to salvation. The Great Awakening, which in some respects cut across denominational lines and weakened the hold of sectarian dogma, by no means dispelled sectarian differences and bitterness. In fact, it multiplied sectarian cleavages by leading to new splits within such groupings as the Congregationalists and the Presbyterians—one group favored the Great Awakening, another opposed it. Sectarian differences cannot be entirely explained on the doctrinal level alone; religious affiliations in part followed social stratification. All religious organizations, to be sure, included both humble and substantial folk; but some, especially the Anglicans and the Congregationalists and Presbyterians in at least the more settled communities, tended to attract the better-educated and better-established classes. On the other hand the Baptists and the Methodist group within the Anglican organization tended to appeal to the less lettered and poorer people.

The Protestant churches, thus held apart by class as well as by doctrinal differences, believed firmly in the absolute correctness of their own interpretation of Scripture. Sectarianism was bitter, and this fact had and continued to have a marked effect on education. It meant that sects regarded education as of first importance in the maintenance of sec-

tarianism: the education of children was to be controlled either in sectarian schools or, as in New England, in public schools whose policies and practices were determined by the orthodox in the community. It also meant that the development of higher education was generally regarded as the business of the various sects.

Sectarianism also exerted an unmeasurable yet nevertheless positive influence on intellectual habits. It resulted from and tended to strengthen naive and absolutistic ways of thinking: if one steadfastly adhered to the principles of his own sect, he must believe not only in the superiority of its creed but also in the inferiority of every other. Thus Baptists were convinced that the immersion of adults rested on Scriptural authority and was thus immensely preferable to the baptism of infants by sprinkling.

Bitter though the rivalry among Protestant groups was, they all shared a common hatred of Catholics. This had its roots in the rancor that most seventeenth-century Anglo-Americans felt toward "popery"; a rancor shared by the Huguenots who settled in South Carolina and other colonies, by the Scotch-Irish Presbyterians in the back country of Pennsylvania, Virginia, and the Carolinas, and by the German-speaking Lutherans and Calvinists in Pennsylvania, Maryland, and Virginia. The relative proximity to Catholic foes during the French and Indian War still further accentuated anti-Catholicism. Calvinist clergy denounced the papacy; the colleges closed their doors to adherents of Rome; and with few exceptions provincial governments either excluded Catholics or discriminated against them.

The Origin of the Universe

From the point of view of intellectual history the most distinguishing feature of Christianity was its acceptance of a particular type of supernaturalism. In one way or another this dictated the Christian view of the origins of the physical universe, the character of human nature, social relationships, and esthetic values.

To all but the most liberal Christians—whose number to be sure was growing—the area in which the supernatural agency of God constantly exerted itself was very large. Orthodox Christians of all sects regarded the universe as God's handiwork, something He had created and which was separate from Him. The book of Genesis told the story. According to

ranks were broken by the rise of a group that emphasized the leadership of the emotionally fervent and redeemed Christian irrespective of his theological training and ordination. Meantime the Baptists and the Methodist group within the Anglican church were making headway in their emphasis on personal feeling as the key to an understanding of God's Word and Will.

These tendencies were all related to the Great Awakening or wave of revivals that swept the colonies in the 1740s. From Maine to Georgia the revivals were preached by men of great feeling and eloquence, many of whom had been inspired by German Pietism or English evangelicalism. The social significance of the Great Awakening will be clarified in a subsequent discussion of the democratic aspects of Christian social thought. Here it is important to emphasize the fact that the Awakening counteracted the growing secularism, rationalism, and skepticism of the eighteenth century on the one hand and on the other challenged the traditionally dominant intellectualistic and authoritarian expositions of Christianity. In kindling the religion of the heart in the great mass of plain people the revivals gave a broader base to the Christian heritage.

Christians differed considerably, and at times vindictively, in their interpretations of the Bible and especially in what they considered the most effective way to salvation. The Great Awakening, which in some respects cut across denominational lines and weakened the hold of sectarian dogma, by no means dispelled sectarian differences and bitterness. In fact, it multiplied sectarian cleavages by leading to new splits within such groupings as the Congregationalists and the Presbyterians—one group favored the Great Awakening, another opposed it. Sectarian differences cannot be entirely explained on the doctrinal level alone; religious affiliations in part followed social stratification. All religious organizations, to be sure, included both humble and substantial folk; but some, especially the Anglicans and the Congregationalists and Presbyterians in at least the more settled communities, tended to attract the better-educated and better-established classes. On the other hand the Baptists and the Methodist group within the Anglican organization tended to appeal to the less lettered and poorer people.

The Protestant churches, thus held apart by class as well as by doctrinal differences, believed firmly in the absolute correctness of their own interpretation of Scripture. Sectarianism was bitter, and this fact had and continued to have a marked effect on education. It meant that sects regarded education as of first importance in the maintenance of sec-

tarianism: the education of children was to be controlled either in sectarian schools or, as in New England, in public schools whose policies and practices were determined by the orthodox in the community. It also meant that the development of higher education was generally regarded as the business of the various sects.

Sectarianism also exerted an unmeasurable yet nevertheless positive influence on intellectual habits. It resulted from and tended to strengthen naïve and absolutistic ways of thinking: if one steadfastly adhered to the principles of his own sect, he must believe not only in the superiority of its creed but also in the inferiority of every other. Thus Baptists were convinced that the immersion of adults rested on Scriptural authority and was thus immensely preferable to the baptism of infants by sprinkling.

Bitter though the rivalry among Protestant groups was, they all shared a common hatred of Catholics. This had its roots in the rancor that most seventeenth-century Anglo-Americans felt toward "popery"; a rancor shared by the Huguenots who settled in South Carolina and other colonies, by the Scotch-Irish Presbyterians in the back country of Pennsylvania, Virginia, and the Carolinas, and by the German-speaking Lutherans and Calvinists in Pennsylvania, Maryland, and Virginia. The relative proximity to Catholic foes during the French and Indian War still further accentuated anti-Catholicism. Calvinist clergy denounced the papacy; the colleges closed their doors to adherents of Rome; and with few exceptions provincial governments either excluded Catholics or discriminated against them.

The Origin of the Universe

From the point of view of intellectual history the most distinguishing feature of Christianity was its acceptance of a particular type of supernaturalism. In one way or another this dictated the Christian view of the origins of the physical universe, the character of human nature, social relationships, and esthetic values.

To all but the most liberal Christians—whose number to be sure was growing—the area in which the supernatural agency of God constantly exerted itself was very large. Orthodox Christians of all sects regarded the universe as God's handiwork, something He had created and which was separate from Him. The book of Genesis told the story. According to

regarded as good in so far as the true and the divine entered into a given regenerate individual; and in the early eighteenth century several New England clergymen, under the influence of the rationalistic element in Puritanism and the rising deism, looked on human nature with some measure of optimism. It will be remembered that Anne Hutchinson, Roger Williams, and the Quakers, while admitting that the flesh is weak, nevertheless regarded it as the vehicle through which the Holy Spirit moves. Anglicans, notwithstanding their emphasis on piety and morals, seem in practice to have viewed human nature more charitably than the Calvinists, in any case they were less concerned with private morals if the forms of the church were decently observed. Catholic doctrine also emphasized the divine spark in every human being. Nor was the grim Calvinistic conception of child nature shared by all religious men. A Lutheran synod in 1760 took a realistic and humane view of child nature in declaring that the Bible must be so presented in religious instruction that children "may feel in their youthful sensuousness as if a box of sugar or something of that sort had been opened for distribution." The German Mennonite schoolmaster, Christopher Dock, observed in his *Schulordnung* (1750) that because of the humanitarian sentiments prevailing in America, schoolmasters could not treat children as strictly as custom in the Old World prescribed. Dock's conception of child nature was revealed in his insistence that the cause of moral infractions on the part of some children must be patiently and intelligently inquired into, and in his emphasis on the principle of loving understanding as the basis of all discipline.

Esthetics in Christian Thought and Expression

The subordinate role that Americans have frequently given to beauty has often been attributed to the horror with which Quakers and Calvinists regarded any appeal to the senses in worship and to their tendency to deprecate sensuous beauty in everyday life. It is indeed true that seventeenth-century Puritans limited music in church to a dismal and unmelodious psalmody, and that Quakers justified their exclusion of it altogether on the score that, in Penn's words, "to bewitch the heart with temporal delight by playing upon the instruments and singing, was to forget God." Nor can it be denied that both Calvinists and Quakers

shrank from decoration in everyday life and that both vehicles for esthetic expression as the theater. That t titudes had some effect in subordinating the concept of and subsequently to utilitarianism is probably true. Bu elements in both Puritanism and Quakerism such a] be pushed too far.

Even on the religious level the attitude of Puritan ward esthetic experience was not altogether one c Puritans expressed some feeling for design on their t the eighteenth century gave increasing scope to elem both church music and church architecture. In religic tanism made room for a beauty of imagery and expres esthetic heights in the writings of the greatest of the l Jonathan Edwards. The spiritually exalted, serenely c socially sensitive writings of some Quakers were alsc relation of religious mysticism to esthetic form and fe

In their everyday lives Puritans and Quakers dic esthetic impulse. If they did not, like the German sect decorate clocks, chests, and furniture with gaily colore designed geometrical figures, unicorns, flowers, and frui expressed their feelings for line and proportion in th their homes. In making these truly functional, even ascetic Christian sects achieved an austere but pleasing beauty. Both Quakers and Puritans inherited and de medieval shop or craft tradition in which simple digni achieved through proportion and line, and this accoun beauty of many Quaker and Puritan homes and everyd is more, the well-known tendency of both Puritans an plore worldly vanities did not prevent them from havi painted when they could afford to do so. Indeed, th artist to achieve European distinction, Benjamin W simple Quaker parents.

The religious groups in Pennsylvania contributed development of music and the minor arts on Ameri Kelpius, deeply versed in the mysticism of Jacob Boehm theosophical tracts on doctrine and prayer at the hermi Wissahickon but composed hymns rich in symbolism. Community Conrad Beissel, of the Seventh-Day Baptist

tributed many highly figurative hymns to a volume entitled *Zionitic Hill of Incense or Mountain of Myrrh, wherein are to be found all sorts of lovely and sweet-smelling odors, prepared according to the apothecary's art. Consisting of all sorts of Love-operations in divinely sanctified souls, which has expressed itself in many various spiritual and lovely Hymns.* It was not only in *The Song of the Solitary and Deserted Turtle Dove* that Beissel's religious mysticism found esthetic expression. He invented a new system of harmony emphasizing peculiar arrangements in the falsetto, and trained the Cloister Sisters to celebrate in picturesque song the awakening of God's kingdom at the setting of the sun and the midnight appearance of the Bridegroom. At the Moravian colony in Bethlehem great emphasis was put on choral work, orchestration, and composition. In 1742 the Collegium Musicum not only enriched the Moravian liturgy but presented in concert form the great music of the Old World. Among many of the Pennsylvania Germans love of beauty also found expression in illuminated manuscripts. At Ephrata this form of esthetic expression was carried to a high level.

The view that esthetic appeals to the senses had their value not only colored the attitude of Anglicans and Catholics toward form and ritual in worship but in some measure affected their outlook on the everyday world. This was in part true also of the Swedish and German Lutherans. Adherents to these liturgical faiths preserved, so far as circumstances permitted, the grand tradition of beauty in church architecture and the use of the organ in worship. As wealth increased, church structures of dignity and beauty appeared in the larger cities. To cite only a few examples, Christ Church in Philadelphia, which was built in 1724 in the Sir Christopher Wren style, installed an organ in 1728 and chimes a few years later; the lovely Rhode Island church presided over by Dean Berkeley was another pioneer in the use of organ music; and the Anglican churches in Charleston exemplified the simplicity, proportion, and stateliness of the architecture of the Georgian renaissance in the mother country. St. Barnabas (Episcopal) Church in St. Anne's parish in Maryland employed the Swedish artist Hesselius to decorate the altar with a "last supper." In Philadelphia St. Peter's Church, noted for its fenestration and the general beauty of its interior, embodied the Catholic conception of esthetics in worship. In 1774 John Adams, after attending services in St. Mary's Church in Philadelphia, wrote to his wife that "the music, consisting of an organ and a choir of singers, went all the

afternoon except at sermon time, and the assembly chanted most sweetly and exquisitely. Here is everything which can charm and bewitch the simple and ignorant. I wonder how Luther ever broke the spell."

Even the Calvinists of John Adams' Boston had gradually modified their early prevailing views regarding the role of music in church worship. The Puritans had always drawn a sharp distinction between music in church and music in the home. The use of instrumental and melodious music in church they had condemned on the score that it distracted from true worship. Vocal and instrumental music in the home and at social gatherings they had approved unless it violated their sense of decency. Gradually, however, their attitude toward church music itself had changed. The dismal and grim metrical versions of the Psalms in the *Bay Psalm Book* (1640, 1651) aimed to reflect as closely as possible the meaning of the Hebrew text. "Lined out" by the church sexton and intoned rather than sung by note, psalm singing at best was on a low esthetic level; by the end of the seventeenth century, with the passing of the old generation and the exigencies of frontier conditions, the quality of intoning had deteriorated markedly. In the early decades of the eighteenth century dissatisfaction with the "old style" of church singing prompted clerical discourses advocating better church singing and encouraged the formation of singing schools. By the middle of the eighteenth century the Psalms had begun to lose their hold in the Calvinistic churches. The *Bay Psalm Book* was modernized, and as a result of the Great Awakening, the hymns of the English Nonconformist, Dr. Isaac Watts, became familiar even in churches that had not opened their doors to the evangelical revivalists. The increasing vogue of Anglicanism, with its use of the organ, also strengthened the desire for more melodious music within the orthodox New England churches.

Marked improvement in church singing resulted from the labors of men gifted in music. Josiah Flagg's *A Collection of the Best Psalm Tunes* (1764) marked an important step in the process by which psalmody was modified in the direction of the more harmonious traditions of church music. William Billings, a lame tanner, popularized fugues and included in *The New England Psalm Singer* (1770) the newer hymns as well as paraphrases of the Psalms adapted to the times. During the last two decades of the century several greatly improved hymnbooks appeared, the most notable ones being those arranged by Joel Barlow, Timothy Dwight, and Nathan Strong. Another popular hymnal was that spon-

sored by the well-known printer of Boston and Worcester, Isaiah Thomas. The first edition of the *Laus Deo* (1786) included the Hallelujah Chorus and many familiar and popular religious songs. Most of the newer books also included a few hymns composed by Americans, the most celebrated of which were Samuel Davies' "Lord I am Thine, Entirely Thine" and Timothy Dwight's austere choral "I love Thy Kingdom, Lord." Francis Hopkinson, the Philadelphian whose original song *My Days Have Been so Wondrous Free* (1759) is regarded as colonial America's earliest secular composition, achieved a wide reputation as a psalmodist by virtue of his adaptation of the Psalms of David for the Dutch Reformed church in New York. This work, together with James Lyon's *Urania* (1761), which likewise marked an achievement in psalmody, indicated that in the Middle Colonies as well as in New England Calvinistic religion was responding to the demand for new and better musical standards in church services.

Calvinist church architecture as well as its church music improved greatly during the eighteenth century. This was partly due to the fact that in the larger and richer communities more means were available for church structures. The spread of Anglicanism and the new architectural fashions in England represented by Sir Christopher Wren and his school also played a part in this development. If the greater emphasis put on ecclesiastical architecture among Calvinists did not consciously reflect the growing idea that objects of beauty might properly turn man's thoughts and feelings toward God, it nevertheless must have enhanced the esthetic experience of the worshiper.

Christian Doctrines and Social Attitudes

Whatever their persuasion, Christians shared certain social ideas. Yet, here, as in conceptions of human nature and esthetics, there was much variety and even considerable contradiction. The Dutch Calvinists, and even more the Swedish and German Lutherans, refrained from applying religious doctrines to political issues. When political authority was seriously challenged, Anglicans tended to emphasize the doctrine of passive obedience to divinely constituted political powers; but they by no means always made a religious duty of political obedience. The Quakers, Mennonites, Dunkers, and other related sects carefully defined the degree of

obedience due the state and in consequence were somew among other Christians. Within the Puritan fold itself the ous leaders and groups who failed to see eye to eye. The socia cal theory of John Winthrop was not that of Roger Wi former regarded church and state as two aspects of an organi latter believed in the separation of religious and political fu denied the right of the state to dictate the beliefs and form of any individual. Finally, the evangelical party, largely ide the more humble social groups and embodying many of the senting traditions within Puritanism, still further complicate implications of Protestant Christianity. Nevertheless, it is name a common authority to which almost all Christians, and Catholics alike, appealed: the Bible was in general re guide in all human relations.

Thus the Biblical condemnation of witches was invoked New England but in Pennsylvania and Virginia. If social a logical conditions were favorable, as was the case in the Ne of the last quarter of the seventeenth century, the Biblical suffer ye not a witch to live, could be invoked to persecu women—and men—against whom other members of the had some grudge. The belief in witchcraft did not entirel after the Salem hangings, but long before the end of the col the execution of witches in the name of God had becom memory.

The general Biblical prescription for family relationships to be taken more or less seriously in most quarters. Scripture the primary social unit was the patriarchal family. Childre joined to give absolute obedience as well as their labor to th woman, in accordance with St. Paul's teaching, was in her orig weaker than man and therefore subordinate to him in all thi pattern of thought, which was generally accepted in Chris save among Quakers and related sects, provided little experi the family in democratic living. Yet this general conceptio relations served human needs fairly well in a new society. T command to multiply and replenish the earth and the stipul youth's labor belonged to his father were congenial precepts the economic value of children in a new land where labor

The Christian's duty to accept his worldly lot was illustrat

sermons. Representative of these was one by the Reverend Joseph Morgan. In 1732 this spokesman of the Lord argued that the poor should be content with their station and that the rich should be sustained in theirs. The poor, Morgan went on, have in general "a more comfortable Life here, and far less danger as to the next Life. . . . A Rich Man has a *miserable* Life; for he is always full of Fear and Care. . . . Whereas a man that has but Food and Raiment with honest Labour, is free from these fears and Cares. . . . We need to *pity* and *love* Rich Men." But, Morgan hastened to add, the accumulation of riches is a public good: "Thus God in his *Wisdom* and *Mercy* turns our Wickedness to Publick Benefits."[4]

The Christian's obligation cheerfully to accept his station was an idea transmitted to the young Republic. Noah Webster, the author of the widely used *Spelling Book* (1783), is only one of many well-known Americans who entertained social beliefs similar to those expressed in such colonial sermons as that of Joseph Morgan. Webster noted in his diary that the Christian must show patient submission to "the evils of life and calm acquiescence in the disposition of divine providence which suffers no more evils to take place in the system than are necessary to produce the greatest possible good." The poor were to submit to poverty with faith that they might better their lot through the practice of frugality, industry, and obedience to the moral teachings of God.

Most colonial Americans recognized that they had as great an obligation to obey civil authorities as to respect their social and economic superiors. British patriotism was a Christian duty which at least the English-speaking Calvinists and Anglicans preached from their pulpits. The fact that the Empire's chief enemies, France and Spain, were Catholic in faith merely served to deepen the patriotic zeal of English-speaking clergymen whose hatred of Rome remained intense. The Dutch and German-speaking Calvinists and Lutherans felt less enthusiasm for Britain. But as Protestants who hated Romanism and as advocates of the doctrine of obedience to civil authority, they tended to go along with their English-speaking Protestant brethren. In the minds of the orthodox it was not only a Christian duty to obey the state but it was the patriotic obligation of civil authorities in turn to support religion.

By and large, Christian doctrine was used to reinforce an economy

[4] Joseph Morgan, *The Nature of Riches, Shewed from the Natural Reason of the Use and Effects Thereof* (Philadelphia, 1732), 14, 15, 17, 21.

based on the sanctity of private property and the value of individual enterprise and profit. But it also sanctioned controls over the use of private property and was even invoked to justify communism. Kelpius, Beissel, and the early Moravian leaders found in Scripture warrant for the religious communism with which they experimented in Pennsylvania. The Pauline and Thomistic conceptions of the rich man as the steward of possessions to be used for the benefit of the needy continued to have at least theoretical importance in general Christian thought. In the early seventeenth century Massachusetts Puritan leaders, well read in St. Thomas Aquinas and aware that a Bible commonwealth involved "the integrity of the community," endeavored to enforce the medieval practices of regulated wages, prices, and profits. But the opportunities provided by cheap and abundant lands and business enterprise deflected men's minds from the ideal of a regulated economy in which profits and the acquisition of property should be subordinated to community well-being. Survivals of the early doctrine, to be sure, were found in the careful regulations provided for the market places in New England towns and elsewhere, and in New England town planning.

The less conservative social teachings of Christianity were expressed in still other ways. Implicit in Puritan doctrine was the idea of the covenant or compact: God and man, men and men, were united by covenant or compact, the terms of which were a sacred guide to conduct. It is true that Puritans in authority tended to interpret the idea of the covenant or compact to their own advantage. Yet it provided a powerful instrument to such dissenters from oligarchic control as Roger Williams, Thomas Hooker, John Wise, and Jonathan Mayhew. In the true spirit of the dissenter these and other men made bold to defy authority, both in England and in Massachusetts, and to defend the principle that authority is limited by compact in both civil and ecclesiastical relationships.

The Puritans were not the only group that opposed authority whenever it clearly overran its "just bounds" by ruling against the word of God and the "common interest." The duty of resisting the evil actions of secular authority was so central in Quaker and Mennonite doctrine that the members of these sects frequently suffered. This was particularly true of the Friends, who during their early career in non-Quaker colonies paid heavy penalties for disobeying the law of religious and civil conformity. The Quaker and Mennonite conviction that war is an instru-

ment of evil which the faithful should not use led to "sufferings" when provinces in which they were in a minority engaged in war. Many preferred harsh punishment to the betrayal of their conscience. In Pennsylvania, where the Quakers long controlled the colonial government, the peace policy that was pursued served fairly well the economic interests of the Friends, many of whom profited from the Indian fur trade. Moreover, unlike the Scotch-Irish on the frontier, seaboard Quakers did not face the immediate danger of Indian attack. Yet the Friends surrendered control of the Pennsylvania government during the French and Indian War rather than take the responsibility for conducting war.

The limitation of authority also owed much to the minority groups struggling for religious freedom. Such struggles were unnecessary in four colonies—Rhode Island, Pennsylvania, New Jersey, and Delaware—where, for the first time in modern history, church and state were entirely separated. Elsewhere, however, the situation was different. The seventeenth-century Maryland Catholics and the eighteenth-century New England Anglicans alike contributed to the growth of religious freedom, not because they believed in it as a Christian principle of universal application, but rather because without it their own position was hardly endurable. Opportunism played a part, too, in the eighteenth-century struggles of Presbyterians, Baptists, and Methodists in colonies where Anglicanism or Congregationalism was established. But some among these groups, especially the Baptists, were also ardent believers in religious freedom as a basic Christian principle; in this they were disciples of Roger Williams and the seventeenth-century Quakers, Mennonites, and other quietistic sects, who had taken the same position. Since minority religious groups could not enjoy full civil rights in provinces where an established church existed, every contest for religious freedom was likewise one for political democracy. Thus Christianity could lend itself to the support of democratic as well as undemocratic political and social practices.

The struggle of the dissenting sects for religious freedom was not their only contribution to democratic ideas and practices. In asserting the importance of a common humanity in contradistinction to a class society, evangelical religion still further charted the road to freedom. Lesser folk who resented political and social domination by the ruling strata in society saw in the revivals one means of protest, one way to defy the well-educated professional groups and privileged merchants and planters.

The religious enthusiasm engendered by the Great Awakening did for a time divert attention from political struggles between the more and the less democratic forces, but it also prepared the way for the advance of democratic forces. By materially augmenting the dissenting strength in colonies with established churches the Great Awakening hastened the separation of church and state. It also resulted in a greater parity between the untutored laity and a clergy that was frequently far less well trained than that which the established churches insisted on having.

Great numbers of plain people were aroused during the revivals to a religious enthusiasm and a conception of their significance in the eyes of God. Domine Theodorus Frelinghuysen and Jonathan Edwards prepared the ground for the later revivalists, for George Whitefield, Gilbert Tennent, Samuel Davies, and Devereux Jarratt. These men, impassioned preachers, dispensed with manuscript notes and erudite sermons and spoke from their hearts to the hearts of the plain people. In promoting new educational agencies, especially the "log colleges," the evangelists helped to democratize learning.

The opposition of the well educated and the well-to-do to the Great Awakening merely accentuated the democratic character of the movement. The opposition of so many among the well-to-do classes may be partly ascribed to the natural distaste of cultivated men and women for the emotional and physical excesses associated with the revivals, excesses especially marked in meetings conducted by such Scotch Presbyterians as the Tennents. But the established classes also opposed the Great Awakening because it threatened, or seemed to threaten, the prevailing political and social arrangements. The vehemence with which certain evangelists, notably James Davenport, denounced the well born, the rich, and the educated was plainly a matter of concern to these classes; the extravagances of Davenport led to his imprisonment. The Anglican doctrine that one must accept his station in life, and the Calvinist emphasis on the idea that the few were to be saved and the many condemned, were in many respects more appropriate to a class society than the evangelical stress on a common humanity in which each soul, however humble, communed directly with God on the same equal plane with everyone else.

Humanitarianism as well as democratic resistance to authority and status also drew strength from Christian thought and feeling. The revivalists promoted missionary enterprises and humanitarian activities.

But general concern for the less fortunate colonial Americans seems first clearly to have appeared among the Friends and Mennonites. In the latter part of the seventeenth century Pastorius urged Friends in Pennsylvania to free their slaves. From 1754, when John Woolman wrote *Some Considerations on the Keeping of Negroes,* until his death in 1772, this Quaker teacher tried to persuade Friends to emancipate their slaves. In 1776 the Philadelphia Meeting excluded those who refused to free their bondsmen. Woolman, whose conception of a compassionate religion with disinterested service to the lowly was so concretely expressed by his life and in his imperishable *Journal,* also preached the Christian virtue of a just distribution of man's worldly goods. In his eyes excessive riches and abject poverty flooded the land with endless ills. Although even Quakers who had achieved wealth and worldly position in some measure shared his spiritual and social values, Woolman was outstanding for the emphasis he put on the social implications of Quakerism. When the philosophers of the European Enlightenment idealized the Pennsylvania Quakers for their humanitarianism, their condemnation of excessive riches and vanity, their pacifism, and their simple morality, they could have pointed to John Woolman as the outstanding model for their picture.

But Quakerism had no monopoly of Christian humanitarianism. The Puritan concern for the well-being of everyone in the group, particularly in matters of morals and faith, could be extended to humanitarian and charitable action, as the "friendly societies" of Cotton Mather proved. Franklin confessed that the *Essays to do Good* of this erudite divine inspired in him devotion to the ideals of neighborly cooperation, service, and humanitarianism. Moreover, the Puritan concern for the degraded was not limited to their own culture group. John Eliot, the Mayhews, and others tried, it will be recalled, to educate and uplift the Indian of New England; and Judge Samuel Sewall of Boston published in 1700 a tract, *The Selling of Joseph,* in which the slave trade and slavery itself were condemned as un-Christian. "There is no proportion," observed Sewall, "between Twenty Pieces of Silver and LIBERTY."

Such Christian sentiments were to develop, under proper social pressures, into wider protests against the status quo. And to the Quaker and Puritan appreciation of the hardships of the less fortunate must be added that of the Anglicans, whose missionary and educational efforts reached from New York to Georgia. Evangelistic preachers in the slave commu-

nities drew inspiration in their stand against slavery from their colleagues in England, who by the mid-century were beginning their notable campaign against the slave trade.

The Cultivation of Theological Thought

The clergy naturally laid special emphasis upon theology as the most important field of speculation and knowledge. American clergymen continued to follow closely the work of their colleagues abroad, and the theological developments in the eighteenth-century colonies paralleled in many respects those in the Old World. Henry Mélchior Mühlenberg, the patriarch of the Lutheran church, had studied at Göttingen and Halle and possessed sound and extensive scholarship. In 1763 three of his sons set off for Halle to prepare for the ministry. Fresh recruits from the German theological centers, such as J. H. C. Helmuth who arrived in Pennsylvania in 1769 and published devotional and theological writings, kept Lutherans in touch with the theological scholarship and speculation of the fatherland. Similarly the German Reformed church continued throughout the first three-quarters of the eighteenth century to send well-trained theologians to Pennsylvania and to German settlements in other provinces, and these clerics—J. A. C. Helffenstein, for example—published their sermons and theological reflections. The Dutch Reformed church in New York also sent its sons to Holland for theological study and received well-trained clergymen from Leyden, Groningen, and other university centers. English-speaking clergymen likewise, through books and sojourns in England and Scotland, kept in close touch with the theological interests of their fellows abroad. Occasionally English leaders, such as Fox, Whitefield, the Wesleys, and John Murray, the Universalist, came to America in person.

But the streams did not all flow down one side of the mountain. American theologians addressed not only their fellow Americans but an audience in Europe as well. By the middle of the eighteenth century two fairly well-defined groups were developing one or the other of the two major traditions in early Puritan thought and enjoying a European response to their writings. One, which emphasized the rational and the humanistic elements in the Puritan tradition, can best be considered subsequently in relation to the rise of the Enlightenment. The other

developed in a systematic way, and with much intellectual skill, the deterministic and mystical or emotional elements in the Puritan tradition.

Several factors explain the tendency to systematize the deterministic and mystical in the Calvinist New England tissue of thought. The evangelical emphasis on free will and grace demanded a counterdefense of election and predestination. The deistical implications of the rationalistic position of the liberals invited orthodox refutations. The rising tide of secularism could not go unchallenged. This had advanced so far that there was no longer a question of building God's kingdom, a Bible commonwealth, here and now; it was necessary to deal in terms of universals, to emphasize the relation of man's temporary sojourn in an evil world to the nature of evil, the essence of God, the eternal verities. To strengthen their position New England theologians of the conservative school reasserted in more systematic form the essentials of the Calvinistic position as it had been modified by the seventeenth-century Puritans. By tying together loosened knots and by straightening out snarls in the theological argument, they sought to give a renewed strength to the fabric of New England theology. At the same time its champions made certain compromises with the enemy. As yet they were reluctant to meet the rationalistic challenge of the Enlightenment—that was to be largely reserved for a later generation. But they did try to square somewhat the harshest and the most rigorous aspects of Calvinism with the new sentiments of humanity and reason. And the growing challenge of evangelicism, which conservatives had belittled and derided, they met by taking it to their own bosom. Jonathan Edwards, a leading evangelist and a great theologian, did far more than point the way to such a synthesis.

Although Edwards died in 1758, his influence persisted. Two of his works were published posthumously in 1788, and long after that his metaphysical and theological writings, especially his great *On the Freedom of the Will*, inspired many a student. What gives Edwards a highly significant place in the history of our thought is that he made many concessions to the newer currents challenging Calvinism, and yet in his final synthesis he subordinated all of these to an amazingly logical defense of the essentials of the Genevan master as they had been developed by subsequent Calvinists. To rationalism and even to materialism he made certain bows; Locke's theory of knowledge, with modifications, he partly, but only partly, incorporated. Accepting with unquestioning loyalty the truth and rationality of the Scriptures, Edwards like the

more than two decades of thinking and writing, Hopkins developed the New Divinity theology associated with his name. Hopkins attempted to hold to the essentials of Edwards' theology, but he slipped into compromise with the new ethic of worldly reform. For Edwards, God's plan for the world was an objective good, whether it made for human happiness or for worldly misery. To Hopkins, on the other hand, God's universe was a stage on which progress toward the greatest happiness of the whole was enacted. To this conception of the greatest happiness of the whole, Hopkins coupled the doctrine of general atonement, the idea that Christ died for everyone, for Negroes, Indians, and the disinherited generally, as well as for the godly and substantial classes. Hopkins' ideas of the happiness of the whole and general atonement led him to take an active missionary interest in the unfortunate, especially the slaves. He vigorously attacked slavery, in spite of the interest of Newport merchants in the slave trade.

Hopkins tried to maintain that his reformist attitude was consonant with Edwards' determinism by emphasizing that all benevolence must be completely disinterested. Edwards had asserted that all selfishness is sin. Hopkins, shifting the emphasis, insisted that all sin is selfishness. Any interest in the self, apart from the objective order of creation, is sinful. Thus the antidote to sin, the supreme human goal, is to become "disinterested" in the self, to become truly benevolent. Hopkins' New Divinity was an attempt to defend Calvinism by incorporating into it the elements of the more humane morality of the eighteenth century. But Hopkins, and Edwards' other followers, failed to achieve a compromise or a synthesis that would restore unity to the religious life of New England.

Thus the intellectual life of the colonists—their views of the universe, of human nature, and of esthetics, their social and political ideas—was shaped in large measure by Christian patterns of thought. The Great Awakening brought Christian doctrine and Christian experience to the great body of plain people, who in many instances had previously been affected by the Christian heritage in only a general way. Within the patterns of Christian thought, of course, still other intellectual values and perspectives found a place and formed a part of the intellectual legacy from the colonial age.

2 Legacies to the New Nation

What then is the American, this new man? He is either an European, or the descendant of an European; hence that strange mixture of blood, which you will find in no other country.

—DE CRÈVECŒUR,
Letters from an American Farmer, 1782

By the end of the eighteenth century the young American nation possessed a distinctive intellectual life. The ideas and agencies of thought and opinion in the newly launched republic were no mere replica of those in the Old World. This resulted in the first instance from the fact that the American physical environment provided a unique stage on which colonial life developed. The unique nature of intellectual life in the young nation was also related to the fact that a company of many-tongued actors played their parts on that stage.

The colonial legacy to the United States was the contribution of many peoples each influencing the others—a process that inevitably modified the ideas and cultural institutions imported from the Old World by each of these varied groups. Although the influence of non-English-speaking peoples of the seventeenth and eighteenth centuries on subsequent intellectual life in America has often been underestimated, it is nonetheless true that the ideas and agencies of intellectual life bequeathed by the colonial era owed far more to Great Britain than to any

other land, for English-speaking peoples made up the dominant element in colonial society.

The Unique Legacy of the English-Speaking Colonial Americans

The English-speaking colonists contributed, from their own heritage, all-important vehicles for the communication of knowledge, ideas, and attitudes. Modified though it was by accretions from other culture groups and by colonial conditions, the English language was yet the dominant one in the new nation—a fact of profound significance. It meant, among other things, that the Americans shared with Great Britain the ballads and the more formal literature of the motherland. But the literary legacy was greater than this, for it was through English and Scotch channels that the Graeco-Roman classics and the literature of the Renaissance were transmitted to the American people. The better-educated colonial Americans might and did read in the original the writings of the great French thinkers, but for the most part eighteenth-century Continental thought was introduced to the colonies through translations made in Great Britain and through British interpretations. The British newspaper, pamphlet, broadside, and magazine likewise provided colonial Americans with models. Colonial colleges were patterned after the British colleges, and the Latin grammar schools closely followed British prototypes. Even the dame schools and charity schools had their English precedents.

The Atlantic seaboard was a stage on which the bitter conflicts of the entire Protestant Reformation and the Catholic Counter-Reformation were reenacted. The dominant religious patterns, however, came from Great Britain and Ireland. Catholicism, Anglicanism, Calvinism in its Congregational and Presbyterian forms, and Quakerism were all derived from Great Britain. British Independents, Baptists, and Quakers contributed to America their distinctive religious doctrines, including the significant idea of the separation of church and state. The ideas of religious toleration and freedom expounded in Great Britain by Quakers, by certain Puritan groups and individuals, and by the Cambridge Platonists and Latitudinarians provided the necessary seeds for the growth of these ideas in American soil, which proved to be even more fertile ground for them than that of the motherland.

British social and economic ideas, modified by the colonial environment, bulked large in the legacy to the new nation. Conceptions of class, including the remnants of such feudal ideas as benefit of clergy and the laws of land inheritance, were brought over during the time of settlement, and the English ideal of the gentleman took firm root in early America. More consequential were the British middle-class conceptions of comfort, individual success, and usefulness. The Irish and Scotch-Irish contributed the ideas of clan loyalty and opposition to landlordism. Remnants of English medieval economic ideas, such as control of the market place, also took root in the colonies. The mercantilistic doctrine of integrated control of the Empire's economic life increasingly ran counter to many colonial interests; but a mercantilistic philosophy, modified to promote the interests of American merchants, was enlisting support on the eve of the Revolution. Above all, the growing idea of free economic enterprise figured in the British-derived legacy.

In the field of legal and political ideas the heritage from the motherland was of paramount significance. English-speaking colonial Americans had the same respect for law as the British, as well as the same inclination to protest against it or against its administrators when it seemed to be incompatible with local self-interests. The doctrine of the higher law, or the supremacy of the law of God and Nature over all human law, though of course not exclusively English in origin, was transmitted to the new American nation through British channels. The common law, modified though it was in some respects by colonial conditions, was of English derivation. The British Americans brought with them and nourished on colonial soil the characteristically British concepts of local self-government and representation, of written constitutions, and of judicial supremacy. The seventeenth-century doctrines espoused by the English Puritans in their struggles with the King also migrated to America and were refurbished in conflicts between the colonists and the mother country and even in tussles between the more and the less privileged groups within the colonies themselves. In this arsenal of ideas were included the conviction that the relationship between ruler and ruled is a contractual one, the doctrine of the supremacy of the higher law over human authority, the right of revolution, and the conception, unforgettably formulated by Milton, of the civil liberties. The antithetical political ideas of passive obedience to constituted authority also survived among English-speaking colonial Americans, who

cited British precedents and treatises in support of their contentions.

The full significance of the British heritage of ideas and patterns for the agencies of intellectual life will become more clear in subsequent discussions.

The Culture of Non-English-Speaking Groups on the Atlantic Seaboard

The Dutch, Germans, Swedes, Welsh, and French Huguenots scattered along the Atlantic coast from New England to Georgia resembled the heirs of British culture in that they possessed much of the same knowledge, many common values, and a similar outlook on nature, man, and society. This similarity was related to the fact that the non-English-speaking groups, as well as the English, Scottish, and Scotch-Irish, were affected by certain great processes that were profoundly altering the civilization of all western Europe: the process of maritime expansion and colonization on the one hand, and the religious conflicts of the Reformation and Counter-Reformation on the other. Whatever the land of their origin, the lives of the migrants had been affected by economic and social changes incident to the expansion of trade, overseas activities, and internal readjustments, especially the dislocation of agriculture. In consequence of these social and economic changes and conditions in Europe, it was largely artisans, peasants, and small traders who left their homelands for America. With few exceptions, these peoples also subscribed to one or another form of Protestantism. These facts, together with the common life which they more or less shared in the New World, made it all the more natural for them, regardless of differences of speech, national culture, and creed, to think alike on many matters. At the same time, however, the Dutch, Swedes, Huguenots, Germans, and other peoples differed from one another and from their English-speaking neighbors in many respects and made each his own contribution.

The century between the British conquest of New Netherlands in 1664 and the outbreak of the American Revolution had been marked by the waning role of the Dutch element in New York. Certain ideas and customs prevalent during the Dutch rule, such as the use of judicial torture and easy divorce, had disappeared altogether. The beginnings of an indigenous literature had, except in the field of theology, been for-

gotten. No one read the early seventeenth-century treatise of Domine Johannes Megapolensis on the Indians, in which he confessed his mystification at the Mohawk dialect. The verses of Jacob Steendam and Domine Henricas Selyns, as well as the political and descriptive tracts written in the early years of the colony by such men as Van der Donck, a university-bred physician, apparently lay collecting dust on the shelves of a few great houses. Indeed, the vigorous intellectual life in Holland had occasioned few echoes in New Netherlands even at the height of Dutch rule.

Nevertheless, some remnants of the old Dutch culture survived and even affected the intellectual life of the province a hundred years after the British took over in 1664. The use of arbitration as a means of administering justice and the quasi-feudal ideas that governed the relations of patroons and tenants had left their traces in the Hudson valley. As Protestants and traders the Dutch attached considerable importance to literacy; a majority of the ten thousand people in the colony at the time of the British conquest could apparently read and write, and the tradition of elementary education survived in the schools maintained by the Dutch Reformed church. The church itself, with its peculiar polity and architecture, was no doubt the most significant intellectual survival of the Dutch era. The theological, philosophical, and classical writings imported by ministers and schoolmasters during the Dutch regime continued to find readers in the Dutch-speaking settlements. Even more significant was the fact that the ministers of the Dutch Reformed church still wrote and published books; more than fifty books in the Dutch language, chiefly of a religious nature, were published between 1708 and 1794.

The picturesque body of folklore and tradition bequeathed by the Dutch-Americans was hardly less significant as an intellectual legacy than the Dutch Reformed church. Early in the intellectual life of the new American nation a group of New York writers created, from memories of doughty burghers, irascible governors, lordly but indecisive and quaintly phlegmatic patroons, together with the folklore and legends of a simple, fun-loving, and superstitious people, distinctively American specimens of literature that have a permanent place in our culture. Washington Irving's[*Knickerbocker's*] *History of New York* (1809) and Hudson valley legends are, of course, the best-known examples.

On the eve of the Revolution the presence of German-speaking groups

provided another element in the intellectual heritage of the new nation, and their culture displayed more vitality than that of the Dutch. From the three counties in eastern Pennsylvania largely dominated by Germans, these people had spread into southern New York, into western Maryland and Virginia, and even into the Carolinas. German-speaking groups from the Rhineland and Switzerland had also settled in the Southern Colonies. Only recently, in fact, has the importance of the German contribution to the cultural life of the colonial South been fully appreciated.

Although the German groups included skilled artisans and even learned scholars, the peasant element predominated. In many respects the plain folk among the Germans resembled the untutored men and women in other cultural groups: they feared God, labored hard, cherished their families, resorted to weird remedies when ailing, and took but little interest in the affairs of the larger world. Yet the unusually thrifty, family-centered, pious, and industrious peasants and artisans of German stock possessed certain skills, values, and ideas that gave a singular flavor to their culture. Combining a love of beauty with utilitarianism, the German peasant and craftsman introduced the great medieval tradition of folk art; the sturdy barns with their decorative effects, the carefully designed and colorful household utensils and furniture, the fine-line drawings often found on baptismal and marriage certificates, rich in religious symbolism and folklore, added variety and picturesqueness to the intellectual and artistic heritage of the young American nation. The Pennsylvania Germans also cherished religious music. The 500-odd hymns composed at the Anabaptist community at Ephrata in Pennsylvania utilized every known measure and stanzaic form. These did not become the nucleus of a permanent and significant musical tradition, but the auspicious beginnings of music among the Moravians had a more permanent influence on the development of esthetic ideas and values. Outsiders frequently visited Bethlehem, the principal Moravian center, to hear original compositions in the Bach tradition and to become familiar with the scores of the great European composers.

In still other ways did the skills and values of the plain German folk exert an influence beyond their own communities. The peasant stock's superior knowledge of agriculture found expression both in practice and in discussions in eighteenth-century German newspapers and almanacs,

and fostered an interest in scientific agriculture among Americans of other national backgrounds. As pioneers in the manufacture of paper and in the foundry skills on which printing rests, German artisans helped to provide one of the basic agencies of intellectual life.

Like other culture groups, the Germans included a small number of learned men whose knowledge stood in striking contrast to the intellectual unsophistication of the main body of the people. The founder of Germantown, Pennsylvania, Francis Daniel Pastorius, was known throughout the eighteenth century by his writings, which included *Description of Pennsylvania, Disputation, Missive to the Pietists, Letters, Tractates,* and *New Primer.* The great erudition of Pastorius is even more evident in his *Beehive,* an encyclopedia for his children which was not published until after his death. Another layman, far less learned, did much to disseminate religious knowledge and practical information among the Germans. This was Christopher Sower, the founder of the German-language press in America.

It was in the religious field that the German intellectual leaders contributed most to the foundations of American thought. True, the theosophical writings and songs of Johann Kelpius and Conrad Beissel were not destined to have as much influence on the subsequent development of mysticism in America as did the mystical elements in Quakerism and Puritanism. But German Pietism was a considerable element in the legacy from the colonial era. Pietism was a reaction against the formalism of Lutheranism and the intellectualism of Calvinism. It emphasized the subordination of theology and doctrinal controversy to the religion of the heart and appealed to the ideal of personal piety; it made much of the importance of applying Christian ethics and morals to everyday living. German Pietism influenced American evangelicalism both directly and indirectly. The first contact between German Pietists and Anglo-American Christian leaders seems to have been established by the Lutheran court minister in London who put Cotton Mather in touch with A. H. Francke, the Pietist leader at the University of Halle. In the Middle Colonies Theodorus J. Frelinghuysen and Henry Melchior Mühlenberg, who were sympathetic to Pietism, helped pave the way for the Great Awakening of the mid-eighteenth century. The most telling contribution of German Pietism to colonial evangelicalism was, to be sure, an indirect one: George Whitefield, the English evangelist who had been stimulated by the Halle movement, was the chief agent of the Great Awakening in America.

Other national groups in colonial America made some impact on intellectual life without exerting anything like the influence of the Germans. The Swedes on the Delaware, for example, wrote pioneer descriptions of the topography, flora, fauna, and meteorology of that region. They produced a philological treatise on the Lenape dialect in connection with their efforts to convert the tribe. In Gustav Hesselius the Swedes possessed an organ-builder and artist of distinction who became well known outside Swedish-American circles. Swedish parsons and Swedish religious literature were both imported from the motherland throughout the colonial period. Yet the Swedes were too few in number to resist cultural absorption.

Similarly the French Huguenots had largely been absorbed by their neighbors before the American Revolution. In South Carolina they had contributed to the knowledge of the culture of the grape, rice, indigo, and silk; and in Charleston, in New Rochelle near New York City, and in other centers they had established schools for young women, contributed to the graces of everyday life, and provided nuclei for the subsequent reception of French ideas and customs.

Collectively the large strains of non-English-speaking stocks exerted an imponderable but nonetheless real influence on the intellectual life of the colonial era. The non-English-speaking groups did not subscribe to the Anglican form of religion, and their opposition to the payment of taxes for its maintenance in certain of the colonies strengthened the growing movement for separation of church and state. The mere presence of so many non-British people likewise gave force to the idea that America was an asylum for the oppressed of all the world.

It was in laying a foundation stone for American nationality that the non-English-speaking groups along the Atlantic seaboard made one of their most significant contributions. In Europe new peoples or nationalities had arisen when one conquered and assimilated or was assimilated by another. But in colonial America a distinctive people emerged partly because of a naturalization policy more liberal than that in Europe and partly because the mutual aloofness of the British and non-British cultural groups gradually decreased and gave way to intimate daily association and intermarriage. The fusion of many peoples into a distinctive one was evident in the modification of the English language by the accretion of words from the Dutch, German, and French. And having no British ties and feeling little or no intellectual subserviency to England, these non-British stocks helped pave the way for, and gave reality

to, the intellectual declarations of independence from England during the revolutionary period. Their contribution to the development of the idea of American nationality was pointed out by that shrewd French husbandman, Crèvecœur. "I could point out to you," he wrote in his *Letters of an American Farmer* (1782), "a man whose grandfather was an Englishman, whose wife was Dutch, whose son married a French woman, and whose present four sons have now four wives of different nations." In America, he continued, "individuals of all nations are melted into a new race of men," new in part because of that "strange mixture of blood, which you will find in no other country," but new also by reason of the fact that, having left behind all his ancient prejudices and manners, the immigrant had received "new ones from the new mode of life he has embraced, the new government he obeys, and the new rank he holds."[1]

Significant as were the contributions, separate and collective, of the non-English-speaking groups on the Atlantic seaboard, their influence on the ideas and agencies of intellectual life during the colonial period was less marked than that of the English-speaking peoples. The fact that the Dutch, Swedes, and Germans, especially during the early period of colonization, lived more or less by themselves in relatively contiguous neighborhoods explains in part why their influence was overshadowed by that of the British and their offspring. Moreover, it should be remembered, in estimating the influence of the non-English stocks on the development of intellectual life, that the non-English were probably at no time in a majority in any province. Indeed, the Swedes, Finns, and Huguenots were tiny minorities. Even in Pennsylvania, where Franklin once feared that the German language and culture might supplant the English, the Germans dominated only a few counties. Moreover, the Germans had come not from a united nation but from a variety of separate states. Having fled from persecution, famine, and war, they had little motive for maintaining any close ties with the fatherland, save the religious one. Without political experience and having no desire to participate in politics, the Germans in general willingly surrendered political leadership to the English-speaking groups who represented the governing nation, Great Britain. The political dominance of the English-speaking groups, together with the fact that they maintained closer associations

[1] J. Hector St. John de Crèvecœur, *Letters from an American Farmer* (Philadelphia, 1793), 46.

with their motherland than did the non-English-speaking groups with theirs, explains in large part the more influential role of the British-derived heritage of ideas and cultural agencies.

Legacies of the French and Spanish Borderlands

The American stage received its actors from different Old World backgrounds, but these backgrounds were not unrelated; the French and Spanish on the borderlands in America were basically related to the English, Swedish, Dutch, and German colonists on the Atlantic seaboard by virtue of their common venture in overseas enterprise, economic and religious. That is to say, the French and Spanish in the interior and on the southern and western rims of the present domain of the United States shared with the Europeans on the eastern coast the cultural dynamics of European maritime expansion and the conflicting forces of the Reformation and Counter-Reformation. The differences between the cultural patterns of the Protestant colonists from Great Britain, Sweden, Holland, and Germany and those of the Catholic French and Spanish in the borderlands should not obscure the common tie between them.

Thus it was natural that the thought and feeling of the Atlantic seaboard colonists should have been affected by the presence of the Catholic Spaniards in Florida and of the Catholic French in the trans-Appalachian hinterland. It is true that the Atlantic coast peoples gained little or no actual knowledge from the French and Spanish colonists. But the Latin outskirts of their world were a part of their own setting and inevitably affected their thinking. For one thing New France and New Spain aroused the hostility of those engaged in building a civilization on the Atlantic coast not only because they were Catholic but also because they were the seat of activities that threatened the fur-trading and agricultural ambitions of the seaboard colonists. Moreover, the Dutch and British colonists further inherited the deeply rooted hostility of their homelands to Spaniards and French. With such ideas and interests the seaboard colonists entered into the wars waged by Great Britain against the Spanish and French, and even toyed with the plan of an intercolonial union, the better to defend themselves or even to conquer their economic, political, and religious foes. Thus the pres-

ence of the Spanish and French in the borderlands occasioned, as a legacy to the new American nation, a feeling of suspicion, distrust, and bitterness toward these people.

But the Spanish and French contributions were not merely negative. The pockets of French and Spanish culture that existed at the time of the American Revolution within the present confines of the United States were, sooner or later, to enrich the intellectual life of the nation by increasing the heterogeneous character of its legacies of ideas and values bequeathed by the Old World.

When the Atlantic seaboard colonists began their revolt against England, islands of French culture existed at Mobile and New Orleans and dotted the vast wilderness of the Mississippi valley and the remote regions of the Great Lakes. Although they had faced the vicissitudes of wilderness and imperial struggle, these islands of French life were no longer held together and dominated by military and administrative officials. In 1763, when France surrendered the trans-Appalachian country to England, the French Jesuits were expelled, and the small farmers or *habitants* in the Illinois country, the fur traders, and the merchants were virtually without leadership.

Despite their heroic efforts to convert the Indian, the French religious orders had little permanent influence on the aborigines. But in the course of their missionary efforts they did introduce some part of intellectual culture into the forest. The Jesuits established a college at Kaskaskia in 1721, and a half century later some of the rare volumes from its library graced the private collections of the aristocracy of St. Louis. Father Meurin, who had come to the Illinois country in 1742 and who had received special permission to return after the expulsion of his order, had studied the dialects of the Illinois Indians and prepared a dictionary. In view of the supreme difficulties involved in the effort to convert the red men and to exert some vigilance over the scattered *coureurs de bois* and farming communities, it was impossible for the religious orders to sustain intellectual life save as the most pressing requirements of the Catholic faith dictated.

In the more settled villages, such as Vincennes, St. Charles, and St. Louis, intellectual culture had made some advances among the well-to-do fur merchants, physicians, and other substantial citizens. Impressive private libraries could still be found on the baronial estates with their seignorial traditions. In 1800, when the population of St. Louis

numbered only 669 souls, fifty-six heads of families owned books—a total of 1350 volumes. Among them was a good representation of standard French works on engineering, medicine, science, and the classics. What is more surprising, several of the well-to-do merchants owned the writings of the great exponents of the Enlightenment. The library of Auguste Chouteau of St. Louis, for example, included the works of Voltaire, Diderot, Rousseau, Beccaria, Locke, Descartes, Buffon, Montesquieu, and the Abbé Raynal. Dr. Antoine François Saugrain, pioneer in the use of smallpox vaccine in the western country, owned copies of Goethe's works, the writings of Moliere and Beaumarchais, and a number of books on medicine. As late as 1818 a Protestant missionary in Missouri complained that every Frenchman "of any intelligence and importance" with whom he formed an acquaintance was of the school of French Liberalists—"an infidel to Bible Christianity."[2] However true this may have been of the upper group, the rank and file of small merchants, fur trappers, and *habitants* clung to the Catholic faith. Nor did much learning grace this picturesque folk; in 1796 two-thirds of the population of Vincennes did not even know how to read.

New Orleans and, to a much smaller extent, Mobile were the only French centers destined to exert an important and persistent influence on the life and thought of the nation of which they were ultimately to become a part. In 1766, when the Spanish took over New Orleans, it was a village of little more than three thousand people, a third of whom were slaves. Yet its impressive ecclesiastical and public architecture displayed civic and esthetic values. The Jesuits and Ursulines had made it possible for many youth to obtain an elementary Catholic education. There is, indeed, some evidence that by the end of the century the writings of the French *philosophes* were known in New Orleans. The urbane social amenities and gaiety of the substantial citizens did not, however, encourge serious intellectual endeavors. Apart from a few official reports and memoirs, the only literary production of any note seems to have been an epic poem written by a wealthy planter in 1779.

Yet Louisiana transmitted a definite intellectual legacy to the nation that purchased it in 1803. The Siete Partidas, an amalgamation of Roman-French-Spanish law, continued to influence Louisiana law. Creoles clung to the French language and customs and even maintained

[2] Rufus Babcock (ed.), *Memoir of John Mason Peck, D.D.* (Philadelphia, 1864), 87.

cultural supremacy in New Orleans until almost the middle of the nineteenth century. The cosmopolitan admixtures of French, Spanish, and other peoples provided a grace of life, a light-hearted, pleasure-loving spirit, a strong feeling of caste, and a picturesque, dreamy sense of the past. At length French-speaking Louisiana was to become conscious of this past and interpret it to the nation in histories and legends. In time a local-color school of literature, of which George Cable and Grace King were representative, was to present a faint but charming silhouette of this lingering Latin culture.

To some of the lands they conquered and attempted to colonize the Spaniards left little more than a legacy of place names and faded memories. On others they had significant and enduring influence. Only a few converts, churches, and ruined garrisons, and the names of places testified to the long Spanish occupation of Florida which in 1763 came under the British flag. In 1776 the Spanish impact on Texas promised to be lasting. The dozen Franciscan missions that had been established by 1731 had introduced among the Indians a knowledge of textiles, stock raising, and Spanish agriculture in general. The vocational training that the natives received went hand in hand with the main purpose of the fathers—the Christianization of the aborigines. In 1778 Fray Juan Augustin Morfi wrote that "these Indians are today well instrumented and civilized. Many play the harp, the violin, and the guitar, sing well." The Indian neophytes painted frescoes and altarpieces that fused primitive and Spanish concepts of color, design, and imagery, and they carved figures of saints and cherubim striking in effect. Yet the promise was not fulfilled. The future of Texas was not to lie with the Spaniards. Only in place names, in traditions, and in land law was the Spanish influence to survive the migration from the United States in the 1820s and 1830s.

Under the leadership of the remarkable Franciscan, Junipero Serra, the missions of California were entering on a golden age when the eastern seaboard colonies struck for independence from England. But the labors of the friars of California bore little fruit so far as the Indians were concerned. The paternalistic mission regime failed to teach the Indians how to preserve and develop the civilization of Spain without clerical direction. Thus when the missions declined and finally became secularized in the nineteenth century, the Indians generally reverted to their primitive way of life.

In the New Mexico country a sufficient number of Spaniards, lay

and clerical, took root to provide lasting foundations of Spanish culture. The Pueblo Indians, differing as they did in their culture from the aborigines of Texas and California, accepted and retained Catholicism, which they blended with their own religious rites and doctrines. The mixture of Spanish and Indian blood in the mesas, canyons, and deserts of New Mexico and Arizona provided another basis for the permanent survival of Spanish Catholic culture. Indeed, Santa Fé, with its garrison, trading post, churches, and convents, reproduced on a small scale some of the glories of the Spanish-American culture of Mexico City.

Although the efforts of the Jesuits and Franciscans in the Southwest nowhere fully achieved their dream of narrowing the gulf between the Spaniard and the native, the missionaries did carry their own learning into the Southwest and in the course of their labors made significant contributions to knowledge. To the chain of sturdy and beautiful mission structures that stretched from the Rio Grande to San Francisco Bay, Junipero Serra, Father Kino, and other friars brought theological and devotional volumes of intellectual and artistic merit. In quest of souls, the Franciscans and Jesuits did not come as scientists, ethnologists, historians, geographers, and teachers, although they were to some extent all of these. Their reports to their superiors, sometimes made available to a larger public, contained valuable maps and descriptions of the physical environment and of the languages and cultures of the Indians themselves. In the Arizona country the Jesuit missionary Father Kino, after formulating necessary vocabularies, translated catechism and prayers into native tongues. His *Historical Memoirs of Pimeria Alta* describes with accuracy and insight the customs, character, and topography of the regions visited by this tireless and devoted missionary. For a century and a half Father Kino's map, which discredited the prevailing theory that California was an island, was the principal map of the Arizona-California country. Between the years 1745 and 1763 three Franciscan fathers in the Texas missions wrote books on missionary methods and on the philology and character of the native peoples.

The Spanish missionary era came to an end in the first quarter of the nineteenth century, but its influence survived among the Spanish-speaking Californians and New Mexicans, and to a lesser extent among the Pueblo Indians. At length English-speaking America, after its conquest of these regions in the middle of the nineteenth century, was to discover the survivals of architecture, the crude but fascinating and often

moving decorative arts of the Spanish-Indian culture, and the folklore of those who had come under Spanish influence. Archeologists and anthropologists enlarged the horizons of their respective fields and contributed to a general awareness, especially in the Southwest, of the antiquity and achievements of the earlier cultures and their lingering traces. The Spanish past provided materials for California writers of the local-color school that emerged after the Civil War. Thanks to Helen Hunt Jackson, Mary Austin, Willa Cather, and others, the reading public both in the Southwest and in the country at large have become increasingly aware of the romantic and primitive glow of the mesa and pueblo land and of the mission past. The discovery of all these traditions and survivals came too late to be a dominant or shaping influence in American intellectual life. Yet in the Southwest the Spanish left a permanent impress, and the Spanish bequest to American thought and feeling has been colorful and enriching.

The Indian, the Negro, and the Atlantic Seaboard Legacy

The colonists on the Atlantic seaboard knew relatively little about the French and Spanish achievements with the Indian and distrusted what was commonly supposed to be a Machiavellian alliance. But their own experience with the Indians in the coastal region and hinterland shaped their ideas about the red men. Indeed, the presence of the Indian was a telling factor in the emotional and intellectual heritage passed on by the colonists. The ever-felt nearness of the red man explains many differences in ideas and attitudes between the colonial Americans and their European fathers and brothers.

The fact that the English, Dutch, and Germans did not achieve the same measure of racial and cultural fusion with the Indian as did the Spanish and the French had far-reaching consequences. For one thing, it prevented the seaboard newcomers from understanding what great differences existed in the cultural levels and characteristics of the various tribes; in their eyes all red men were alike. Thus the white man's ideas of the Indians were warped by much misinformation, fancy, and prejudice. The Indian concept of the collective character of landownership, for instance, did not make sense to a people rapidly becoming more conscious of individual property rights and beginning to show a com-

petitive spirit in agriculture as in other forms of economic enterprise. By and large the whites understood little of Indian nature worship, of the poetical Indian love of the land as it was rather than as it might become under cultivation, or of the Indian fondness for symbolizing memorable communal experiences in rituals and ceremonials. Neither did the whites fully understand the Indian concept of passive submission to an irresistible fate, or the curiously dual behavior of the red man when he was with his own kind and when he was with the whites. The stoicism, the sober gloom, and the dignity attributed by the whites to the Indian did not always correspond to his actual behavior when he was with Indians.

These misconceptions tended to be corrected as traders and missionaries among the Dutch, German Moravians, and English made contacts with the Indians. From the material culture of the red men the whites learned lessons in forest lore, in agriculture, and in medicine; they also learned the advantages in forest fighting of the open or deployed order under protection of ambushes—a tactic that contrasted with the close order of the Europeans. Forest diplomacy likewise occasioned the Indian treaty, a new literary form born of the contacts of the two races. Some fifty of these treaties found their way into print. Constance Rourke has emphasized the highly dramatic character of this form of "practical letters," and has called attention to the rich episodes, the bold portraiture, the sly humor, the high quality of poetry, and the epic proportions of these treaties, the prototypes of the later stage plays of Indian life.

The interplay of action between the whites and Indians required explanations and vindications of the white men's behavior and of the Indian responses to that behavior. Being unable to enslave the Indian, the whites worked out a theory of the red men as quasi-sovereign peoples to be won as allies in the contests with French and Spanish rivals. When the Indians blocked the agricultural advance of the white frontier they were killed or pushed farther into the hinterland or confined to reservations. It was this process that set the major intellectual problems for the whites in their relations with the Indians.

The practical nature of the problems posed did not prevent the whites from cloaking their ideas about the Indians in religious terms, for the age was an intensely religious one and religious assumptions underlay much of its thinking. It was incumbent on the whites, in the first instance, to explain in terms of Genesis and Exodus the existence of the

Indians on the western hemisphere, a problem that was generally answered by regarding the Indian as a descendant of the African Phoenicians or the Asiatic Tartars.

More important, of course, was the idea, widely held, that Christian duty demanded the salvation of the Indian from the devil, whose peculiar creature he was. The early Virginians endeavored, sporadically and half-heartedly to be sure, to Christianize the red man; the Swedish Lutherans along the Delaware sent out missionaries to the Indians and translated the catechism into the Lenape dialect; the Moravians entered into the work with genuine devotion. Puritan divines preached the duty of rescuing aboriginal souls from hellfire; the Mayhews, David Brainard, Jonathan Edwards, and Eleazar Wheelock followed in the footsteps of John Eliot, the pioneer Puritan missionary whose work had included the translation of the Bible into an Algonquin dialect. In devotion to faith and empire, the Anglican Society for the Propagation of the Gospel in Foreign Parts maintained missions among the Indians of central New York. The fact that so little success attended the efforts to bring the Indian into the Christian fold has sometimes been attributed to the Protestant emphasis on an ability to read the Bible, an emphasis that made the labors of Protestant missionaries far more difficult than those of French and Spanish Catholics in the Ohio and Mississippi valleys and on the distant plateaus of the Spanish Southwest. In a larger measure the relative failure of the Protestant missionary efforts may be attributed to the basic conflict between the economy of the Indians and that of the English. The fact that the Atlantic seaboard settlers pushed westward in search of farms jeopardized the Indians' hunting grounds and made conflict inevitable.

When the conflict became particularly bloody, when the white men, hysterically fearful for their lives and for those of their women and children, indulged in brutal recriminations and even in massacres, they found it necessary to justify their actions on moral and rational grounds. In their efforts to enslave the Indians the whites had already elaborated a rationale of white superiority. This rationale was now extended. The Indian was condemned as a savage incapable of becoming civilized and Christianized. He was, in the words of Cotton Mather, a rabid animal, perfidious, bloody, cruel, a veritable devil in the flesh, an agent employed by Satan himself to overcome God's chosen people. If such vituperations were less necessary in periods of equilibrium, it was still easy to regard

the Indian as an inferior species to be forced onto a reservation or pushed farther into the wilderness when the land hunger of the whites pressed too heavily on his preserves.

Such rationalizations of white superiority were of course a far cry from the picture of the Noble Savage that had gradually emerged in the drawing rooms of European philosophers and poets for whom, at a safe distance, the savage Indian possessed great romantic charm. Educated eighteenth-century Americans gradually became familiar with the romanticized conception of the Indian as a stoical, dignified, unspoiled child of nature, or with the rationalistic idea that he was an innately good creature, conditioned by his peculiar environment and susceptible of quickly taking on the white man's virtues.

The African cultural pattern, like that of the Indian, stood out in stark contrast to those derived from western Europe. But by reason of their intimate association with the whites the Africans were to influence American intellectual life to a greater extent than the Indians. This was true in spite of the fact that the Negro was a minority element in the seventeenth century and that, even at the end of the colonial period, it was only in the Southern Colonies that he made up a considerable part of the population. There was also the consideration that African culture did not come to America intact. Carried to the Atlantic seaboard against their will, thrown abruptly into an utterly unfamiliar way of life, and held to an abject status, the Negroes retained only portions of their primitive African culture.

It is no easy task to estimate even roughly the extent to which African culture survived among the Negroes and directly influenced the whites. Some anthropologists hold that the Negro retained large portions of his African culture and that these had great power of survival. There can be little doubt that the culture which the African did bring with him affected his selection of certain elements in the white culture; yet it seems to be stretching a point to assume, as one authority has, that the Negro fondness for the Baptist faith resulted from the presence among the slaves of many priests of the African river-cults. But in any case, the African-born Negroes did not entirely abandon all their religious rites. It may be that in some instances these reinforced comparable culture traits among the whites; the Reverend Samuel Parris, whose credulous view of the testimony of the bewitched was heightened when members of his family became afflicted during the Salem outbreak, may have been

influenced by, and may well in turn have influenced, his Barbados slave woman, Tituba, who was wise in the ways of voodooism and a confessed witch. Whether or not African rhythms survived to any appreciable extent in the dance, in work songs, and ultimately in the religious music or spirituals of evangelical revivals is a disputed point; but there is no question regarding the transmission by the Negroes of such African "day names" as Cudjo, Quashy, and Cuffee, and of a considerable body of folklore, including the tar-baby and rabbit stories.

It would be easy to overemphasize the importance of formal education, whether secular or religious, in the acculturation of the Negroes. The dominant white view regarding formal instruction of Negroes crystallized only slowly. In the interest of efficiency masters early began to teach Africans the English language, vocational skills, and concepts of obedience and subordination. As the slave status of the Negro servant became generally accepted and legally insured, masters were reluctant to Christianize colored people lest conversion work manumission. But the Bishop of London made it clear that conversion need not affect slave status. Thus the way was opened to formal efforts in the Anglican colonies to instruct Negroes in Christian doctrine. The Anglican Society for the Propagation of the Gospel in Foreign Parts outshone any other group in its services to Negro education. The Reverend Thomas Bray and his "associates" promoted the establishment of schools and taught hundreds of slaves and free Negroes not only Christian doctrine but reading, writing, and simple arithmetic. Puritan slaveowners in New England gave religious instruction to their household servants, and the Quakers as early as 1693 began to advocate religious training as a preparation for emancipation. By the third quarter of the eighteenth century such Quakers as Anthony Benezet were instructing Negroes in schools established for that purpose.

In spite of these efforts progress was slow, partly because of the Negroes' unfamiliarity with the English language, their disinclination to accept a new religion in place of their own rites unless they clearly saw an advantage in doing so, and the great differences between African conceptions of morality, truthfulness, and property rights and those of Christians. In addition, many slaveowners continued, despite official pronouncements, to fear that Christianization, especially if accompanied by the knowledge of reading, might promote Negro unrest and make white control more difficult. Born of such fears was the law South Carolina

enacted in 1740 forbidding whites to instruct Negroes in reading and writing. Yet in the course of time, and especially as a result of the religious revivals of the eighteenth century, increasing numbers of Negroes were gathered to the fold. With its emphasis on humility, equality before God, and salvation in the future world, Christian faith made more and more appeal to the slaves, who tended, in some cases against the wishes of their masters, to make the Christian religion their own.

Instruction in reading for Christian uplift gave some Negroes a considerable body of the white man's knowledge. Advertisements for the sale of Negroes or for the return of fugitives included such informative statements as "he can read print," "can write a pretty good hand and has probably forged a pass," "could read, write, and speak both French and Spanish pretty well," and "has some knowledge of medicine." Exceptional members of the race achieved distinction in the white man's realm of the mind. The poems of Phyllis Wheatley (1773) and of Jupiter Hammon (1761) may be cited for their feeling and versification, and the almanacs of Benjamin Banneker for the mathematical skill they displayed. Before the end of the colonial period at least a few Negroes were sufficiently well trained, or on the way to becoming sufficiently well trained, to instruct the sons of the white gentry in the higher as well as in the elementary branches of knowledge. The mass of the black race, however, remained largely ignorant of the intellectual arts of the whites.

While the Negroes were slowly becoming familiar with some of the white man's ideas and even his intellectual skills, the whites were being influenced by the Negroes. In areas where their numbers were considerable, the Africans influenced the folklore, idiom, pronunciation, and food habits, and possibly the music and dance, of the whites.

The indirect influence of the Negro on American intellectual life was an even greater factor in the colonial legacy to the new nation than any direct influence. In the South the presence of a host of abjectly ignorant slaves deepened the traditional Old World gulf between the classes who shared the great body of humane and scientific knowledge and the masses whose world of thought and feeling was governed largely by lore and superstition. In creating the problem of slavery and a related race issue, the presence of the Negro bequeathed a stubborn legacy to the new nation. The slave system gave rise in the South to a greater emphasis on the idea of social class than would otherwise have been the case. The concept of the dignity of manual labor, which was to become a char-

acteristically American idea, was largely lacking in the slaveholding communities of the Old South, where physical toil was associated with slavery. In the later seventeenth century, as the whites slowly crystallized their ideas about the slave status of the Negroes (these had at first been regarded as servants in more or less temporary bondage), it became necessary to rationalize the dominant position of the white race. The blacks were looked upon as "accursed" and "inferior." The repressive and brutal punishments sometimes meted out to slaves, especially to those who resisted their fate by engaging in revolts, were justified on similar grounds. At the same time the pitiful condition of the blacks fed the springs of Christian and humanitarian sentiment and thus gave rise to the idea that the Negroes must be freed and enlightened.

The ideas and attitudes represented by so many cultures—indigenous, African, and European—not only were modified by interaction with one another. They were still further modified by factors that resulted from the physical environment. The two intimately related forces—cultural interaction and environmental selection and modification—were changing the ideas and attitudes of all the peoples living in America, were creating a new civilization.

3 The Old World Heritage Modified

January 27, 1711 I rose at 5 o'clock and read two chapters in Hebrew and some Greek in Lucian. I said my prayers and ate boiled milk for breakfast. I danced my dance. It rained all night but held up about 8 o'clock this morning. My sick people were all better, thank God Almighty. I settled several accounts; then I read some English which gave me great light into the nature of spirit. I ordered Tom to plant some (l-e-s) seed. I ate goose giblets for dinner. In the afternoon my wife and I took a little walk and then danced together. Then I read some more English. At night I read some Italian and then played at piquet with my wife. . . . I said my prayers and had good health, good thoughts, and good humor, thank God Almighty.

—*The Secret Diary of William Byrd of Westover, 1711*

Intellectual life in colonial America was much like that of the Old World from which in so large a measure it was derived; on both sides of the Atlantic there were always the fundamental postulates and categories

of civilized western thought. But one cannot understand the intellectual equipment of the rising American nation without taking into account how the American physical environment and the new social environment modified the Old World intellectual agencies. It would be a great mistake to assume that the intellectual life of Great Britain, Holland, France, Germany, and other lands was transferred to the New World *in toto* and developed here in the same way as in Europe. Here the first colonists, after trying and perilous voyages, encountered a physical environment that often differed strikingly from that of their homeland; at once they were confronted with pressing problems of survival and of adjustment to their fellow men, problems they had never met before. Here their descendants continued their conquest of the wilderness; they had to work out new ways of dealing with the people, savage and civilized, of their own and of different nationalities with whom they were thrown in contact or whose company they needed. New problems beget new thoughts, and in the long-drawn-out process of learning to live in America the colonists found that their habits of living, their attitudes and hopes, and, along with these, their systematized ideas were altered in many ways.

Whatever the differences between the areas comprised in the thirteen original states—and these environmental differences were indeed considerable—all had certain common features that differentiated them from the Old World. In all the colonies natural resources were abundant as compared with the homelands; in all of them the population was not only varied in ethnic makeup but relatively sparse. These facts, together with the related one that colonial economy was predominantly extractive in character and hence predominantly rural, exerted a selective influence on the survival and modification of Old World ideas.

A few examples must serve to illustrate the general theme. The effort to transplant the declining feudal institutions and ideas of Great Britain was largely futile because of the easy accessibility of free lands. The plan for establishing a titled aristocracy, whether in Massachusetts or the Carolinas, failed chiefly because humble folk could not be kept in a position of quasi-serfdom on vast landed estates when an abundance of land enabled them to become freeholders. Even the feudal ideas of land inheritance, primogeniture and entail, were difficult to sustain and were in fact declining as a result of frontier influences long before the American Revolution struck them a death blow. To take another example, the

great distances, the scarcity of population, and the primacy of economic tasks in a new country made it impossible to reproduce in totality the specialized intellectual functions of a mature society. Even if Latin grammar schools, colleges resting on medieval foundations, and richly endowed libraries had been immediately needed and pressingly demanded in the relatively simple colonial societies they simply could not have been maintained as in the Old World. Nor, even had there been the desire, could literary and scientific patronage in all its fullness, or the Inns of Court, or the scientific institutions of Holland and Germany have been duplicated. In time various agencies of intellectual life did indeed develop according to Old World patterns; but the colonists in adjusting themselves to the new conditions of colonial life modified these institutions in more than one respect.

The colonies not only differed from Europe in physical environment and social conditions, they differed from one another; and each colony was further divided into regions, some of which had much in common with similar regions in neighboring provinces. The differences between the settled districts along the seacoast and the less populated inland or frontier country were no less striking. He who swung an axe in the back country had a different outlook from the merchant, the artisan, or the planter in the coastal regions. The varied economies that developed as a result of differences in soil, climate, and natural resources in New England, the Middle Colonies, the Southern Colonies, and the back country in all these sections affected the number and character of schools, libraries, colleges, newspapers, and indirectly the more basic attitudes toward nature and society.

The complex economy of New England, for example, encouraged the growth of compact communities which, in contrast to the far flung isolated homesteads in the South, could maintain schools fairly easily and could foster training useful to the town meeting type of local government and to rising commercial pursuits. The bountiful provisions of nature in the South, so different from the sparse endowment of New England, encouraged the Southerners to concentrate on agriculture—a fact that profoundly affected intellectual life. The Southerner, too, was less careful in his attitude toward the exploitation of the soil than the New Englander, and more inclined to develop out of doors recreational habits. Economic conditions springing out of the physical environment made large slaveholding unprofitable in the northern colonies and ma-

terially affected thought respecting that social relationship, just as the profitableness of slavery in the tobacco and rice colonies inclined Southerners toward the justification of slavery and toward an agricultural aristocracy. These examples will be multiplied as the story of American intellectual development unfolds.

How the agencies of intellectual life and patterns of thought and feeling were modified by the common features that differentiated all the colonies from Europe, and by the peculiar local conditions in the colonies, can be illustrated by reference to the varied problems and needs of men and women in the country and in the towns, whether in New England, the Middle Colonies, or the South.

The Intellectual Interests of Country Gentlemen

Whether of English gentry or trading background, the substantial Narragansett planters of Rhode Island, the lords of estates in eastern New York and Pennsylvania, and the more numerous great planters in the Southern Colonies inherited and aspired to realize the ideal of the English country gentleman. Land was too abundant, too easily accessible to enable them to establish a feudal aristocracy by completely identifying political privileges with the holding of great estates. But if they could not entirely succeed in reproducing the English feudal estates, they lived and thought in a way that set them apart from their indentured servants, their poorer neighbors, and the rough and ready hunters and pioneer farmers on the frontier. They cherished the conviction of their own natural right and destiny to leadership in civil and social affairs, and of consequent responsibility for those beneath them in the social order; they thought of themselves as guardians of courteous manners, hospitality, fortitude, prudence, moderation, and justice; they assumed the utility of religion both to individuals and to the decent foundations of society; and they respected learning both as a practical tool and as a badge of gentility. These ideals, which in some degree governed the planter wherever he lived, can be illustrated by reference to Virginia.

The planting aristocrats of Virginia, convinced that one was "better never born than ill-bred," spared no effort to acquire learning and culture and to provide it for their sons. The culture of a gentleman approxi-

terially affected thought respecting that social relations profitableness of slavery in the tobacco and rice colonies erners toward the justification of slavery and toward aristocracy. These examples will be multiplied as the sto intellectual development unfolds.

How the agencies of intellectual life and patterns of th ing were modified by the common features that differe colonies from Europe, and by the peculiar local con colonies, can be illustrated by reference to the varied needs of men and women in the country and in the tow New England, the Middle Colonies, or the South.

The Intellectual Interests of Country Gentlemen

Whether of English gentry or trading background, t Narragansett planters of Rhode Island, the lords of est New York and Pennsylvania, and the more numerous gr the Southern Colonies inherited and aspired to realize th English country gentleman. Land was too abundant, to sible to enable them to establish a feudal aristocracy identifying political privileges with the holding of great they could not entirely succeed in reproducing the English they lived and thought in a way that set them apart fror tured servants, their poorer neighbors, and the rough and and pioneer farmers on the frontier. They cherished the their own natural right and destiny to leadership in ci affairs, and of consequent responsibility for those beneath social order; they thought of themselves as guardians of cc ners, hospitality, fortitude, prudence, moderation, and ju sumed the utility of religion both to individuals and t foundations of society; and they respected learning both tool and as a badge of gentility. These ideals, which in governed the planter wherever he lived, can be illustrated b Virginia.

The planting aristocrats of Virginia, convinced that on never born than ill-bred," spared no effort to acquire learnin and to provide it for their sons. The culture of a gentle

mated the Renaissance ideal of versatility; it included a general rather than a specialized knowledge of the Greek and Roman classics, an acquaintance with French and with the great writers in the English tongue, and some familiarity with the Bible and Christian doctrine, history, philosophy, law and political thought and practice, medicine, music, architecture, painting, and natural science. In order to introduce their sons to this culture Virginia gentlemen customarily employed tutors—sometimes educated young men who came to America as indentured servants or as employees, sometimes neighboring parsons. The tutor prepared the young Virginian for college by grounding him in Lilly's *Latin Grammar*, the *English Rudiments, Goldmine on the French Tongue*, Hodder's *Arithmetic*, and *Euclid*. In the natural course of things sons were sent either to one of the colonial colleges or to the great public schools and universities of the mother country or, in the case of the Catholic planters of Maryland, to a Jesuit college in France. The daughters of these country families often learned their French and occasionally other subjects from family tutors; from their mothers they acquired the finish and social graces appropriate to ladies. The planters themselves possessed the means, leisure, and inclination to buy and read newspapers, magazines, and books, to travel to the provincial capital on matters of business and politics, and there to attend concerts and dramatic pieces and to exchange talk with college professors, clergymen, and officials who had recently been in London or at Cambridge, Oxford, or Edinburgh. At the provincial capital the planter also displayed his remarkable knowledge of political theory and practice, the one field of knowledge in which the professional rather than the amateur standard was acceptable.

The versatile intellectual equipment of a gentleman planter not only was a badge of social status but was designed to be useful in the practical concerns of everyday life. The Virginia planter, like his Elizabethan forebear and his New England contemporary, did much "purposeful" reading; even the books on religion and piety which the planters read in greater measure than is commonly supposed were presumably useful preparations for leading a good life and for the next world. The classics themselves were considered useful in providing lessons of patriotism and statesmanship, models of pure taste in writing, and personal solace and inspiration. The Virginia planter also acquainted himself with Blackstone, Coke, the Virginia statutes, and *A Perfect Guide for Studious Young Lawyers*, the more effectively to adjudicate local disputes involv-

ing points of law. He sometimes read the classical treatises on medicine and always had at hand at least one practical book of advice on the epidemic diseases that struck at his slaves and his livestock. He studied the best English architectural guides when the time came to design and build a new house or garden. Aroused by the ill effects that prevalent methods of farming had on the soil, planters and substantial farmers responded to the British agricultural reform movement and read the imported *Mystery of Husbandry Discovered* by John Worlidge or some other treatise on scientific agriculture even though the best British guides were of little use to cultivators of such indigenous staples as tobacco and corn. As the scientific movement associated with the Enlightenment became felt in America, planters occasionally supplemented their reading and practical experience by planned experiments with soil and breeding. Some, motivated by practical needs or by a desire for distinction in the great world of learning or perhaps merely by an unusual curiosity, diligently collected and classified flora, fauna, and other natural phenomena in their neighborhood and sent descriptions of their labors to the American Philosophical Society in Philadelphia or the Royal Society in London. William Byrd and John Clayton are examples of planters whose amateur work in science won them recognition abroad as well as at home; and in South Carolina a planter's daughter, Eliza Lucas Pinckney, added to the existing knowledge of rice and indigo culture.

There was, no doubt, some truth in the remark of the Reverend Hugh Jones of the College of William and Mary that early eighteenth-century Virginia planters were "generally diverted, by business or inclination, from profound study and prying into the depth of things" and "more inclinable to read men by business and conversation, than to dive into books."[1] Yet in many cases the depth of book learning possessed by planting gentlemen was considerable. William Byrd the second, for example, began every day by reading a chapter in Hebrew, or the Greek Testament, or Homer, Lucian, Thucydides, or the Anacreon, or one or another of the Latin classical writers. Book lists, diaries, letters, and wills indicate that many planters sustained a lifelong and genuine interest in the wide range of books deemed important in the equipment of a gentleman and useful in carrying on the many activities of the plantation.

The intellectual qualities and talents of southern planters were seldom communicated to the public and transmitted to posterity through the

[1] Hugh Jones, *The Present State of Virginia* (London, 1724), 44.

printed page. For this there were several reasons. The code of the gentleman, emphasizing as it did versatile accomplishments rather than a specialized knowledge, partly explains why contributions to the transactions of scientific societies were the exception rather than the rule. Partly it was due to the necessity planters felt for expressing their intellectual skill in the practice of politics, amateur medicine and law, architecture and landscape gardening, and partly to the lack of publishing facilities and of close contacts in a rural society.

Yet as letters, diaries, and other unpublished materials testify, many planters had literary gifts. William Byrd's diaries, penned in shorthand, reveal versatile and ingenious qualities of mind, pungent wit and keen insight, that were probably not untypical of his class. His *History of the Dividing Line*, which circulated in manuscript form in England, reflects not only the elegant style of the eighteenth century but an earthy humor and a sophisticated urbanity. The qualities of mind of which William Byrd was so excellent a representative became part of the legacy which the ruling class of the plantation South bestowed upon the intellectual life of the new nation.

At the end of the colonial period the values and intellectual interests of the planting gentry closely resembled those of the English country gentleman. But colonial conditions had in some respects modified the heritage. In the first place, it was easier in Virginia, as it was in Maryland and the Carolinas, for self-made men to enter the ranks of the country gentry because land was so much more abundant and accessible than in England. Granted that pride of family became a pronounced trait in the psychology of the rural gentry, the planting aristocracy was by no means a closed caste. The values and attitudes of the colonial planter were more practical than those of many of his English forebears and contemporaries. Having to attend to the direct export of his produce and to the import of his luxuries, he disparaged commerce and trade less than did the English country gentry; indeed, planters seldom objected to having their sons become merchants. Furthermore, the colonial planter could succeed only through shrewdness and careful attention to the practical and business details of a great plantation; in this respect his perspectives and values differed in some measure from those of his English model.

Planters were aware that special efforts needed to be made in a rural, isolated, and provincial society if the younger generation was not to be-

come one of ignorant boors, if their sons were to have the courteous manners, graces, and polite acquaintance with the classics that distinguished a gentleman. Thus planters frequently put even more emphasis than their English contemporaries on the importance of their own education and that of their children.

Finally, slavery introduced a new note in the code and behavior of the American planter. It tended to reinforce and give reality to the attenuated feudal ideal, including pride in the feeling of being a lord of creation. If some achieved the gentlemanly ideal of restraint and liberality in dealing with slaves and other inferiors, many acquired an arrogance and a belief that physical violence was necessary to control such childish people. Thus the American southern gentleman resembled his English cousin, but he was, as the studies of Louis B. Wright and others show, definitely American.

The Intellectual Interests of the Plain People in the Country

The plain people in the country generally did not share the intellectual interests of the local gentry, but the lower classes in the Middle and Southern Colonies included a certain number of indentured servants with some claims to education. In these colonies the demand for family tutors and teachers was frequently met by obtaining an indentured servant deemed capable of providing instruction to the young. In 1773 the Reverend Jonathan Boucher of Maryland testified that "not a ship arrives with either redemptioners or convicts, in which schoolmasters are not as regularly advertised for sale, as weavers, tailors, or any other trade with little other difference, that I can hear of, excepting perhaps that the former do not usually fetch so good a price as the latter."[2] Advertisements in newspapers informed the public that such and such a ship captain would sell a white servant who knew Latin, or French, or mathematics, or accounts. The indentured servants that bound themselves out as tutors or teachers frequently included well-trained Scotsmen and even occasional university men anxious to make a start in the New World. In general, however, the talents of most of the indentured servant teachers

[2] Jonathan Boucher, *A View of the Causes and Consequences of the American Revolution: In Thirteen Discourses* . . . (London, 1797), 184.

were meager; the evidence is fairly clear that many drank to excess and even had criminal records. Although in some instances an indentured teacher might enjoy the respect of his master and the community, for the most part these men were treated as servants. Thus the scarcity of schools for the sons of the planters introduced a factor in the intellectual life of rural American communities less frequently found in the English countryside—the educated or semi-educated servant or near-servant.

The great body of farmers throughout the colonies did not, of course, possess either the leisure or the economic means to develop their minds in the degree and manner possible among substantial planters. The grim tasks of everyday existence absorbed most of their mental and physical energy. Nor did they have either the time or the money to buy many books or to make prolonged visits in the towns and cities. Yet from the very experiences that tied them to their farms they and their children learned much about the seasons and elements, about animals, plants, and trees. They learned the skills associated with husbandry and the household arts. This knowledge was related to their main concern in a way which that acquired from books could not have been.

Handicapped though small farmers were in matters of book learning, they were not entirely cut off from the world of ideas expressed in the printed page. As boys most of them had learned to read and write, meager though school opportunities were in rural America, especially in the Middle and Southern Colonies. Even in New York, Pennsylvania, New Jersey, and Delaware the churches maintained some schools in rural districts; and in the Southern Colonies these were supplemented by "old field" schools supported by neighboring farm families. Toward the end of the colonial period these slender facilities in the Middle and Southern Colonies were enlarged by the rise of "log colleges." Founded by Calvinist clergymen, these institutions made it possible for the sons of ordinary farmers to acquire some part of the classical education regarded as necessary for the ministry. In New England the sons of plain farmers mastered the rudiments of reading, writing, and arithmetic during short winter terms at the district schools sustained by the community. Boys too frail to endure the rigors of farm life or gifted with intellectual talents often managed to prepare for college in the home of the village parson or to attend a Latin grammar school in a neighboring town. Farm girls everywhere generally fared less well in schooling than boys, but it was often customary, especially in New England and in the church

schools of Pennsylvania, to admit girls; elsewhere they sometimes learned to read without benefit of school attendance.

Religion offered some intellectual stimulus to farmers in almost every region of the colonies save the frontier. In many village churches, both in New England and in the provinces to the south, farmers often listened to sermons on theology and ethics that were of high intellectual caliber. From the middle of the eighteenth century to the eve of the Revolution farmers as well as townsmen heard well-trained ministers expound the political teachings of Sidney, Milton, Harrington, and Locke. Some farmers no doubt applied these writers' doctrine of political contract to the local political area and were thereby fortified in demanding from the ruling groups a larger participation in legislative matters. Anglican clergymen in the Southern Colonies sometimes displayed less zeal for learning than their Calvinist colleagues, but such men as Commissary James Blair and the Reverend Thomas Bray of Virginia cherished high standards of scholarship and stimulated parsons, professional men, and farmers alike to read books in the parish libraries that they founded. Above all, farmers obtained much intellectual stimulus from reading and especially from discussing and "chewing over" the Bible and books on piety.

The almanac was another source of intellectual stimulus to the farmer. Read and reread, enjoyed for the jokes and humor and for the engraved embellishments as well as for the information their pages contained, the almanacs were frequently saved for many years, and provided eager boys and girls with a wide variety of reading material during the long winter evenings. Probably few farmers questioned the accuracy of the almost encyclopedic information found in the almanacs. Yet if these popular pamphlets did not do much to foster a critical attitude toward what was contained in their pages, the best almanacs struck straight blows at superstition and folklore, and introduced to many a country lad the Copernican and Newtonian conceptions of the universe.

From the almanacs the farm family secured practical advice on health and medicine, the planting and harvesting of crops, the position of heavenly bodies in different seasons, household arts and lore, and political information. Under the influence of the two outstanding almanac makers, Dr. Nathaniel Ames and Benjamin Franklin, the better almanacs also provided esthetic satisfactions through quotations and selections from some of the great Continental writers as well as from such eighteenth-century English essayists and poets as Addison, Steele, Thomson, and Pope.

In the almanacs there was much sprightly and homely wisdom; and from these proverbial expressions it is possible to guess at the social attitudes and general values that farmers held or that the editors of these pamphlets desired them to hold. In accordance with the needs of colonial life the farmer was advised to be enterprising, painstaking, frugal, and industrious. *An idle man is a Burden to himself, to his Family, and to the Publick. . . . God gives all things to Industry. . . . A fat Kitchen makes a lean Will. . . . Industry and frugality make a Poor Man Rich. . . .*

Numberless maxims made virtues of self-help and self-reliance: *If you would thrive, first contrive & then Strive. . . . Many complain of bad Times, but take no care to become better themselves. . . . Adversity makes a Man Wise. . . .*

Contentment with one's lot found frequent expression: *Let the Poor be Content with their present Lot, for when they come to make Brick without Straw, their case will be yet Worse. . . . Pain's our Inheritance; Pleasure is lent to Man upon Hard Usury. . . . All men are by nature equal, But differ greatly in the sequel. . . . 'Tis as truly Folly for the Poor to ape the Rich, as for the Frog to swell, in order to equal the Ox.* But the advice to accept one's fate was tempered with the admonition to acquire what one could: *Get what you can, and what you get hold; 'Tis the Stone that will turn all your Lead into Gold.* Besides such maxims the folk wisdom of the almanacs included among the roster of virtues obedience to parents and a proper neighborly cooperation in practical matters.

Because the farmers read little and wrote less, it is difficult even with the aid of the almanacs to reconstruct their social attitudes and intellectual presuppositions. A study of the ballads and folk songs that farm people sang throws some light on their sentiments and ideas. While it is true that indentured servants and even slaves sang these songs, they belonged in a peculiar sense to the yeomanry or small freeholders.

The ballads and folk songs that the colonists brought with them from England, Ireland, Scotland, and other countries became subject to the changes of oral transmission and to the impact of new experiences. Innumerable variants of such famous Scotch and English ballads as "The Maid Freed from the Gallows" and "Lord Randall" reflect rural crimes and sensations. But since there are no written versions of these ballads and folk songs as they were sung in the colonial period it is not possible to say with certainty to what extent and in just what respects they were modified. It is reasonable to suppose, however, that some of the modifi-

cations that occurred gradually during the American career of these Old World ballads began in the colonial period itself. Thus supernatural elements no doubt began to be discarded, high-born personages tended to shed some of their aristocratic peculiarities. In addition to the Old World songs and ballads which were modified as they took root in American soil, rural folk sometimes composed new songs to express new experiences. From the colonial period, however, relatively few songs have come down to us in their eighteenth-century form; "Springfield Mountain," the trivial ditty of a young man "bitten by a pison sarpent" while mowing hay, and several songs celebrating the French and Indian War are among those that did become part of the American heritage.

The ballads and folk songs sung by rural people during the colonial period portrayed vigorously, swiftly, and concretely universal problems of the human heart. Grim warfare, disappointments in love, the harshness of parents, gentleness toward women, mercy toward the poor, and justice for the oppressed—these were themes of many of the gloomy and somewhat fatalistic songs in which both evil and good stood out starkly without qualification. Poignant and simple, these romantic songs were charged with values admirably summarized in an evaluation attributed to Sidney Lanier. "I know that he who walks in the way that these ballads point will be manful in necessary fight, fair in trade, loyal in love, generous to the poor, tender in the household, prudent in living, plain in speech, merry upon occasion, simple in behavior and honest in all things." The songs lived because they helped those who sang them to meet the vicissitudes of rural life in a new country. In answering the need for beauty, in providing emotional outlets, and in upholding as a moral value resignation to frustration and tragedy, the ballads and folk songs were useful to the bold, unsophisticated people confronted by strange new problems as well as by the traditional ones.

The limited formal intellectual interests and many of the attitudes of the farmers, who at the end of the colonial period formed a majority of the Americans, stood in direct contrast not only with the culture of the well-to-do planter but also with that of the frontiersman who had pushed into the raw land to the west of settled areas. Even in New England, where the frontier was advancing more largely by town groups than by individuals, the process often lowered intellectual standards. An example was the division of the New England town school into local or "district" schools that were smaller and accordingly inferior but which were the

best that sparsely settled areas of the newly laid-out township could maintain. Beyond the thin line of settled communities the frontier diluted such intellectual culture as the farmer and his family possessed. The hunters, trappers, adventurers, and first wave of pioneer farmers seldom had either the opportunity or the need to indulge in what commonly passes for the life of the mind. Churches and schools, the two chief agencies of intellectual life in the more settled rural areas, were at first nonexistent in the remote hinterlands. Communication was so inadequate that broadsides, newspapers, almanacs, and the Bible itself could be obtained only by chance. In any case conditions of life on the farthermost frontier were such that these agencies of intellectual life were of little use in the immediate tasks at hand.

Yet even life on the frontier was not one of entire mental and emotional torpor. We may be almost certain that Scotch and English ballads were sung and adapted to new experiences and needs in the wilderness. And a new kind of education was achieved in the very struggle with the primitive forces of nature, which often sharpened practical inventiveness and promoted self-sufficiency, versatility, and independence of mind. Nor should the educational value of exploring new terrains, new phenomena in nature, and new tribes of aborigines be forgotten in any effort to balance the intellectual gains and losses incidental to pushing back the frontier.

The most significant idea that both ordinary country people and frontiersmen possessed was that of the value and dignity of their way of life. Toil on the farm was hard, but the American farmer was not a peasant. He had come to regard the cultivation of the soil not only as a dignified calling but as the most important element in the economy. He did not need to have the Physiocrats tell him that. The farmer and even the frontiersman in the wilderness had also come to realize that, to protect or advance his interests, he must participate to some extent in public life. He bequeathed a legacy of individualism and of democratic inclinations —these constituted his chief intellectual gift to the new republic.

Colonial Towns as Intellectual Centers

Wherever towns sprang up and flourished, intellectual life differed markedly from that in rural areas. When measured on the same cultural

scale as the larger provincial towns of Great Britain the more considerable colonial towns made an excellent showing in cultural opportunities and achievements. But similar though American towns were in many respects to provincial British towns, they differed in various ways. New ideas and new books reached America from England only at irregular and often at long-delayed intervals; apparently one of the first copies of Newton's *Principia*, published in England in 1687, to arrive in the colonies was that which James Logan obtained in 1708. English intellectuals had sometimes qualified or even abandoned given ideas before the colonists had received and assimilated them. Isolation was consequently even more marked in some respects than in the provincial towns of the mother country. In addition, almost every American seaport of any size numbered among its residents people of various ethnic backgrounds, a fact which made American towns and their intellectual life unique.

In considering the legacy of colonial towns to the intellectual life of the nation it is of some importance to keep in mind the fact that at the end of the colonial era no town was sufficiently larger than the others or was so situated as to become the dominant cultural center. Boston and New York each numbered scarcely more than 20,000 people in 1770, and Philadelphia had only 30,000. Charleston with its 10,000 population and Newport with 7000 were themselves centers of considerable importance. Each colony or group of colonies looked in the first instance to the largest town in a given stretch of the Atlantic seaboard. After that London was naturally regarded as the center of thought. This was true in spite of the preeminence of Boston and Philadelphia in certain cultural activities, and notwithstanding the growing habit among artists, scholars, clergymen, and printers of developing contacts in cities other than their own. The fact that the new nation began with several intellectual centers no one of which enjoyed cultural hegemony was to be a telling factor in its subsequent intellectual history.

The growth of towns in the eighteenth century—one person in thirty lived in a town at the end of the colonial era—profoundly affected the development of intellectual life. Besides the larger towns, smaller ones, such as Annapolis, Lancaster, Providence, Hartford, Albany, New Haven, and Lynn were centers of communication, exchange, and to some extent of intellectual activity. The seaboard cities were in relatively close touch with England, and all the towns were centers of communication for surrounding areas. Annapolis and Williamsburg, although little more than

villages, were frequented by the more consequential Maryland and Virginia planters who enjoyed the social life as well as the advantages offered by the theater and concerts, and, in the case of Virginia's capital, the College of William and Mary. Although Williamsburg and in greater measure Charleston shared the characteristics of northern towns, urban life developed chiefly in the colonies north of the Potomac. Thus the rise of towns still further differentiated the northern from the southern provinces, intellectually as well as economically and socially.

The towns were the chief centers of intellectual activity because they enjoyed closer relations with Europe and because they offered great opportunities for social contacts and the discussion of events and ideas. They also contained the great majority of the men for whom professional and intellectual interests were the main concern. It was in the larger towns that printers published the greatest number of the broadsides, almanacs, newspapers, sermons, and books that appeared with increasing frequency in each successive decade of the eighteenth century. It was also there that the chief collections of books were to be found, if the great libraries on a relatively small number of plantations and estates be excepted. The towns, too, were for the most part seats of the provincial colleges, whose faculties took a leading part in the intellectual activities. The cities also attracted the most distinguished figures in law, in medicine, and, with notable exceptions, in theology, and they were the homes of the official and merchant classes, whose role in the development of intellectual life was considerable.

Intellectual Interests of the Official and Merchant Classes

The intellectual and cultural life of the capital towns occasionally profited from the presence of royal governors or proprietors' agents interested in learning and culture. These men were often the product of the English universities and the Inns of Court. Many of them stimulated interest in schools and colleges and even contributed to educational institutions from their own funds. Thus Governor Nicholson gave valuable support to William and Mary and to other institutions; Gabriel Johnston of North Carolina encouraged the establishment of a printing press and of schools; and James Hamilton of Pennsylvania took an active interest in the College of Philadelphia and became the patron of Benjamin

West, the first colonial American to achieve distinction in painting. Governor Dinwiddie and Lieutenant Governor de Lancey were both patrons of the theater.

A few representatives of proprietors and of the crown contributed to the intellectual life of the colonies by their own writings. James Logan, agent of the Penns, experimented with Indian maize in an effort to determine sex relationships in plants, and corresponded with the great naturalists of the Old World. Governor Hamilton published literary and scientific papers, and Governor Robert Hunter of New York wrote a political farce, the first play printed in the English-speaking colonies. Governor Hutchinson of Massachusetts compiled a relatively accurate *History of the Massachusetts Bay Colony* (1764). The contribution of Cadwallader Colden, lieutenant governor of New York, to mathematics, physics, botany, and medicine was the most notable enrichment of Anglo-American cultural life by a member of the official class.

The intellectual life of the colonial towns was even more closely dependent upon the merchant aristocracy. In spite of risks and losses incident to business and commerce and the necessity in a new and rapidly developing society of reinvesting a great portion of capital in enterprise, the eighteenth century saw the emergence of a considerable number of men with fortunes resulting from land speculation, the Indian fur trade, lumbering and shipbuilding, fishing, the lending of money, and, above all, trade and commerce. This merchant aristocracy was chiefly confined to the towns of New England and the Middle Colonies, but it was also represented in Charleston, where planters frequently combined agriculture with commerce. These well-to-do merchants, like the planters, tended to imitate in their manners the way of life of the English aristocracy. However demanding their practical affairs were, some among the merchant aristocracy found occasional leisure for intellectual and cultural pursuits. Although few may have specifically recognized it, class distinctions were maintained by a type of education in which the mind of the future lordly merchant was disciplined by the classics, the esthetic sense developed by belles-lettres and the arts, and the social graces supplemented by considerable acquaintance with polite learning. Subscription concerts, limited for the most part to exclusive social circles, enabled him to hear some of the best chamber and symphonic music, including that of Handel and his contemporaries.

The merchants also had to acquaint themselves with more practical

subjects. It was desirable to have some knowledge of navigation, geography, and current economic conditions in the larger world as well as in the colonies themselves. Merchants had to be familiar with the law, modern languages, accounting, and mathematics. Their sons, when they did not go abroad for cultural or professional training, often studied at the colonial colleges. Partly in response to the needs of this group, some of the newer colleges established in the eighteenth century broadened the traditionally classical and theologically weighted curriculum by offering more work in the modern languages and sciences which were useful to the nonclerical professions and in the training of leaders in civil life.

The merchant class thus influenced intellectual life by emphasizing the knowledge useful for their business interests and for the maintenance of their social status. Its members encouraged the provincial colleges by making gifts of scientific apparatus, and, occasionally, funds. Sometimes they contributed to well-planned astronomical observations and other scientific investigations. Along with professional men and a few planters, merchants participated in the activities of the "academy" established by Franklin in 1744 and reorganized 25 years later as the American Philosophical Society. They also had the means to attend the theater which, especially after the fourth decade of the eighteenth century, in some cities presented the plays of the classical English dramatists including Shakespeare, Congreve, Steele, Addison, and Goldsmith. Well-to-do merchants and their ladies had their portraits painted while on visits to England; others patronized such local portrait painters as Robert Feke of Newport and a half dozen others. A Philadelphia merchant, William Allen, made it possible for young Benjamin West to study in Italy; John Singleton Copley's portraits of the merchants of Boston and other cities bear witness to their patronage of this subsequently distinguished artist. Silversmiths, pewterers, glassmakers, and engravers likewise drew support from the merchant aristocracy whose mansions they embellished with their handicraft, much of which was of high merit.

The support given by merchants to printers and bookdealers was an even more notable contribution to intellectual life. A few merchants collected rare and costly books on a wide variety of subjects for their private libraries. The library assembled at Newport by the prosperous merchant Abraham Redwood was rich in the classics, theology, philosophy, and science. The library, like that of James Logan, Penn's representative in Philadelphia, was made accessible to a limited number of

readers. Other merchants supported the proprietary libraries that developed in almost all the larger towns. Some of these libraries were ostensibly open to the public, but in practice they seem to have been used chiefly by the professional and merchant groups that established and supported them. Now and then books were included in the donations made by merchants to the colleges; the college libraries were open to cultivated gentlemen. Sometimes a wealthy merchant subsidized the publication of the writings of less well-to-do fellow colonists. Merchants also helped in the support of the dozen ephemeral magazines which enterprising printers launched in the years between 1741 and 1776. They were also subscribers to such British periodicals as the *Gentleman's Magazine*. All in all, the growth of intellectual life in the colonies was greatly furthered by the merchants.

The Intellectual Opportunities of the Lower Ranks in the Towns

Not every urban dweller, of course, shared in the intellectual life that the cities offered. Children of mechanics, artisans, small shopkeepers, and tradesmen did often profit from the town-supported elementary schools in New England and from the sectarian schools elsewhere, but they seldom attended the Latin grammar schools or the provincial colleges. Franklin's father, for instance, could not send his more intellectually inclined sons to Harvard. Only in exceptional cases did poorer town boys of special promise receive sufficient aid to prepare for college and to continue their studies until graduation.

Thanks in part to the fact that the European guild system, with its regimented restrictions over artisans, was never transplanted to America, mechanics and artisans were able, after their long day's toil, to supplement the training they received in school and apprenticeship. New agencies arose which enabled them to satisfy their natural curiosity and improve their status. In the eighteenth century almost every colonial town advertised private evening schools where one might learn mathematics, accounting, modern languages, and other subjects useful to those seeking to climb in the ranks of commerce. In the two or three decades preceding independence some artisans extended their knowledge of natural science by attending the lectures on electricity, mechanics, geography, and astronomy which men like Ebenezer Kinnersley of Philadel-

phia and Christopher Colles of New York gave in their own and in other cities.

The lower social orders did not enjoy equal opportunities with those above them in the matter of libraries, but they did have certain facilities for obtaining and reading books. The intellectually ambitious artisan or tradesman might occasionally profit from the goodly supply of standard authors in proprietary libraries by virtue of the custom enabling impecunious aspirants to become members through payment of the stipulated fees in kind. Until the Town House in Boston burned in 1747, its reading room, well stocked with theological tomes, could be consulted. In the decades preceding the Revolution private circulating libraries, such as that of John Mein the Boston bookseller, were open to anyone able to pay the required fee—one pound eight shillings in the case of Mein's establishment. Most mechanics and artisans probably found this too steep, but they could and did follow the example of Benjamin Franklin, who organized his fellow tradesmen and artisans in Philadelphia into mutual improvement societies in which practical and philosophical questions were debated and collections of books acquired. The intellectually curious or ambitious artisan found in these libraries ample opportunities for pursuing a wide variety of literary and scientific interests.

The mechanic or artisan or tradesman often profited from the increasing number of newspapers that were launched to meet the needs of merchants for more frequent and systematic reports; twenty-two papers were established between 1713 and 1745. Enterprising lads from the mechanic class sometimes enjoyed remarkable educational opportunities as printers' devils and journeymen in publishing shops. The papers were fairly expensive, but they could be perused at the neighboring taverns. In these journals the man of humble station might read shipping news, stories of crime and accidents, poems, moral advice, essays, and bits of curious and useful information. More important, the papers carried political letters on current issues in the colonies and in the mother country. The newspaper reader was, in fact, profiting from the growing freedom of the press, a freedom of significance to the more humble classes in their tussles with the privileged groups. If a plain citizen were sufficiently ambitious and gifted he might even find in these papers a vehicle for his own thoughts, since the newspaper, by printing contributors' letters, became a sort of public forum. A milepost on the road to free political discussion was passed in 1735 when John Peter Zenger,

a German printer in New York, was upheld by a jury in his claim that a newspaper might, contrary to English practice, criticize an official by printing a statement of fact.

The intellectual life of the sailors, longshoremen, fishermen, indentured servants, and Negro slaves was narrower than that of small shopkeepers and artisans, but even the least favored orders in the towns were not cut off from all chances for schooling. In New England the children of such people could learn the rudiments of book knowledge in the town schools. Elsewhere some of the young of this class learned how to read, write, and "figure" in schools maintained by various religious organizations, the most active of which was the Anglican Society for the Propagation of the Gospel and its allied societies. The laws governing the responsibilities of men to whom children were bound out as apprentices required that the boys, and even the girls, be given a minimum of instruction, and these laws, in spite of frequent violation, accomplished some part of their purpose. Offspring of the Negro slaves in the towns fared less well. But even an occasional black youngster, if his master was indulgent or unusually pious, might learn the catechism, along with respect for his superiors, from the missionaries of the Anglican philanthropic and proselyting societies, or the elements of Christian ethics from Quaker teachers. Notwithstanding the great inequality of opportunity to pursue knowledge in the colonial towns there was, according to European travelers, less illiteracy than in the towns of the Old World.

Those from the lower ranks who knew their letters could find suitable reading matter in the cheap and popular broadsides that could be purchased for a pittance or read in the tavern. These single sheets contained spirited "news ballads" of Indian encounters, patriotic accounts of the French wars, and lurid descriptions of earthquakes and other catastrophes.

The hostility of the "inferior sort" toward "pretentious and haughty aristocrats" was more frequently expressed in political and social tensions than in literary output. But an almanac rhymster's lines "To Spring" betray the resentment of the poor toward the rich:

> Now the pleasant time approaches;
> Gentlemen do ride in coaches;
> But poor men they don't regard
> That labor to maintain them hard.

Such expressions also implied the "lowbrow's" jealousy and compensatory disdain for the effete "culture" of the "better folk." Thus the

cleavage in the intellectual life of townspeople was already raising problems bound to become important with the gradual democratization of life.

If the lower classes disliked the cultured aristocracy it is clear that the educated rich in turn looked down on the "lesser folk," who appeared to them incapable of light and culture. The indifference of the "riffraff" to the learned sermons of the clergy and their hearty response to the emotional appeals of the revivalists during the Great Awakening of the 1740s was, in the eyes of the elite, only one proof of the intellectual shortcomings of the masses. Their "foolish," convivial, gay street songs, adaptations no doubt of current London music hall ditties, also betokened in the minds of cultured and pious leaders a lack of taste and propriety.

On the eve of the Revolution the seventeenth-century sumptuary legislation was largely a memory. But the established classes had by no means abandoned all types of social control. The criminal code was harsh. The church and the schools, as upholders of law and order, made use of broadsides to promote obedience, respect for authority and rank, and upright living. Descriptions of earthquakes were accompanied by solemn warnings sometimes directed specifically to the lowly wicked to repent lest similar visitations of God's wrath utterly destroy them. The execution of criminals charged with offenses against society was similarly made the occasion for hortatory warnings frequently put into the alleged "last confession" of the culprit:

> Let servants all in their own Place
> The masters serve with Faith.
> Lest God should leave them to themselves
> As these poor Creatures were.
>
> Shun vain and idle Company;
> They'll lead you soon astray;
> From ill-famed Houses ever flee,
> And keep yourselves away.
> With honest Labor earn your Bread,
> While in your youthful Prime;
> Nor come you near the Harlot's Bed;
> Nor idly waste your Time.

The gulf between the intellectual and cultural attitudes of the lowest and highest ranks was wide, but some hoped that a bridge might be

thrown across it. Cotton Mather took his own group to task for failing to provide the street folk with pious and uplifting songs in place of the foolish ditties in which they delighted, and his neighborhood clubs endeavored to provide light as well as virtue to the poor and degraded. Particularly in the period just before the Revolution, a humane, enlightened, and democratic representative of the favored classes occasionally admonished the lesser folk to oppose the detestable "European" policy which condemned the common people, "three-quarters of the world," to be kept in ignorance "that they may be slaves to the other quarter who live in magnificence."[3] However inadequate were the facilities for teaching the children of the poor, these facilities in some measure justified the hope that the social and cultural ladder was within the reach of those at the very bottom. Indentured servants sometimes won places of prominence in the intellectual life of the later colonial and revolutionary era—an achievement not altogether surprising when it is recalled that many teachers and well-educated men came to America as indentured servants. Yet the gulf between the intellectually favored upper classes and the ignorant poor remained wide indeed.

The Growth of Colonial Self-Consciousness

Neither the wide divergences between the intellectual life of the various social groups in the city and country nor the isolation of many rural districts prevented the gradual growth of an intercolonial culture. From the mid-eighteenth century to the eve of the Revolution the needs of a more settled society and of a growing trade promoted the improvement of roads and other facilities for communication. Inns multiplied, and the postrider with his pouch of letters, newspapers, and official documents became a more frequent visitor even in the remoter rural areas. As deputy postmaster for the colonial post, Franklin during the years between 1753 and 1755 introduced shorter and better postal routes, lower rates, and the regularization of the practice of sending newspapers through the government post office. As a result of these improvements the communication of ideas was greatly facilitated.

[3] Samuel Briggs, *The Essays, Humor and Poems of Nathaniel Ames, Father and Son, of Dedham, Massachusetts from their Almanacks, 1726–1775* (Scott and Forman, Cleveland, 1891), 382–383.

At the same time the growth of a newspaper press with the increase of population and of commerce facilitated the development of intercolonial self-consciousness. Journalists and printers traveled from colony to colony; even if a newspaper found few readers outside a given community, the events and opinions expressed in any one were frequently copied in others. In somewhat the same way the emergence of colonial magazines was a symptom of a growing self-consciousness.

The lower schools were still too decentralized and autonomous to provide any great stimulus to an intercolonial consciousness, but the colleges promoted that end. Students from one province sometimes studied at the learned institutions of another, and scholars interested in a particular field naturally corresponded with and visited colleagues elsewhere with similar interests.

During the eighteenth century a group consciousness developed not only among college students and scholars but also among physicians, lawyers, clergymen, and Masonic Lodge men. These personal as well as business and professional intercolonial contacts furthered the idea that the colonies should develop a culture different from that of the mother country. With the rise of intercolonial political problems, especially those of defense against the French, the idea of union found expression. As early as 1722 Daniel Coxe, a wealthy and influential resident of New Jersey, anticipated Franklin's famous plan and plea for a union of the colonies.

One mark of this emerging provincial culture was an increasing concern with the colonial past. This was evidenced in part in the efforts of Franklin to purchase Americana in London for the Philadelphia Library Society, and of the Reverend Thomas Prince of Boston to collect the records of New England's past. The development of historical interest in America's past was also expressed in the gradual growth of American historiography. Whereas many histories had been written, like Cotton Mather's *Magnalia Christi Americana* (1702), to glorify God and to demonstrate His particular concern with America and its people, the historical writing in the two or three decades preceding the Revolution was noteworthy for its secular outlook on the colonial past. The Reverend Thomas Prince wrote with surprisingly little of the didacticism that was prevalent in the eighteenth century; and the histories by the Reverend William Stith of Virginia and by Governor Thomas Hutchinson of Massachusetts showed pride in the colonial past without sacrificing the

existing canons of historical scholarship. Such books were read in the various colonies.

But the developing pattern of colonial culture envisioned a bright future as well as a glorious past. Many shared Jonathan Edwards' conviction that Providence had singled America out as "the glorious renovator of the world." Although John Adams, writing in 1765, did not have in mind exactly the same kind of renovation, his words bear quoting. "I always consider," he wrote, "the settlement of America with reverence and wonder, as the opening of a grand scheme and design in Providence for the illumination and the emancipation of the slavish part of mankind all over the earth." In 1730 when Philadelphia was still a small town a local enthusiast predicted that

> Europe shall mourn her ancient fame declined
> And Philadelphia be the Athens of Mankind.

Others noted the deviation of American English from the mother tongue. Some pointed to the greater diffusion of knowledge in America, and others to the pronounced mechanical ingenuity of the people, as tokens of an emerging and different American culture. Expansiveness, self-sufficiency, and visions of "imperial grandeur" likewise marked the growing colonial self-consciousness, but the dream of a great American culture had, of course, to remain almost wholly in the realm of aspiration until social conditions permitted more specialization among those most interested in the life of the mind.

973.3
C97G

4 Diffusion of the Arts and Sciences

G.4731 /1225

All intended for divinity should be taught Latin and Greek; for physic the Latin, Greek and French; for law the Latin and French; merchants, the French, German and Spanish; and though all should not be compelled to learn Latin, Greek, or the modern foreign languages, yet none that have an ardent desire to learn them should be refused.

12254

—BENJAMIN FRANKLIN, 1749

Hypotheses may be of use to put us upon further enquiry, and a more critical examination, but are never to be received, any further than they are supported by proper evidence.

—SAMUEL WILLIAMS, 1785

20/

Physical distance did not break the intellectual ties between the New World and the Old. The American colonists brought with them from Europe a vast store of polite learning and a rapidly developing body of scientific knowledge. Throughout the colonial period Americans worked to preserve this inheritance. The practical demands of life in America and the separation from European centers of learning made it extremely difficult for any thinker to do more than merely transmit literature and science. But in spite of adverse conditions, a number of Americans did make original contributions to the development of their intellectual

heritage. Above all, colonial scholars and scientists made it possible for Americans to participate in the vigorous intellectual life of seventeenth- and eighteenth-century Europe.

The mass of the colonial population was only slightly touched, if at all, by the body of polite learning and scientific interests which developed in the colonies and which was a precious part of the legacy to the new nation. In a sense, to be sure, Christianity had assimilated much classical learning, and ordinary men and women did hear frequent allusions to the ancient writers in the learned sermons of some of their clergy. Here and there among the lowly an indentured teacher-servant was well versed in the classics. In rare instances an ambition to master natural science led the son of an artisan to study Latin; Thomas Godfrey, a Pennsylvania glazier, learned the language in order to read Newton's *Principia*. But on the whole the plain people had little use for Latin, Greek, and Hebrew, or indeed for the classics of the Renaissance literature. The idea that even the common people might derive esthetic satisfactions and mental stimulus from the classics was still practically unheard of. To the people themselves such studies doubtless seemed a useless luxury. Only as the offspring of humble folk sought entrance into the professions or the world of culture and social status did knowledge of the classics and of modern polite learning become essential.

The Transmission of the Ancient Classics

The classics of Greece and Rome might well have been entirely neglected in the busy New World had they not ministered to many needs. In the first place they served the requirements of professional interests. Law and medicine both assumed a familiarity with Latin. The Catholic, Anglican, Lutheran, and Calvinistic faiths all set much store on a clergy that could read Scriptures in the original Hebrew and Greek and had some acquaintance with the vast theological literature in the Latin tongue. If the Christian faith was to be perpetuated in the New World, provision had to be made in schools and colleges for the training of youth in the ancient classics.

That educated Americans in the colonial period enjoyed a firsthand knowledge of classical literature was also the result of the medieval conception that associated command of Latin with status and of the

Renaissance ideal that associated gentility with classical learning. Yet the classics were never regarded merely as a superficial badge of the gentleman. The ancient languages, valued as the repositories of a timeless wisdom and truth, had trained great leaders in the past, and it was assumed that they still had the power to do so in a later day. More than that, the cultured class believed that the truth and wisdom in classical literature were bound to solace the human spirit.

The merchant or planter who regarded himself and was regarded by others as a gentleman thus possessed a knowledge of the classics and saw to it that his sons learned their Latin and Greek at an early age. However much he was occupied with interests allied to his business or occupation, he was likely to maintain a genuine interest in the classics. It is probably true that many a planter who as a lad had learned his Latin and Greek from a family tutor or from the neighboring parson failed to make much personal use of the beautifully bound classical tomes in his library. But classical knowledge was by no means rare among planters, even if most of them were less assiduous in reading the classics than the second William Byrd, whose library included 394 volumes of the ancient classics. In polite conversation in the drawing room, in private letters, and in political orations classical allusions were frequent. Nor was it deemed odd when Richard Lee of Virginia had inscribed in Latin on his tombstone the words: "He was very skillful in the Greek and Latin languages. . . ."

Local parsons and private tutors in the homes of the well-to-do aided in transmitting classical learning to succeeding generations of favored youth, but the task was largely shouldered by the schools and colleges. Thanks to the Puritan zeal for learning and the fact that New England settlement followed the township organization of closely settled communities, Latin grammar schools were established by legislation and in part supported from the public funds of the towns themselves. Thus almost from the start New England had more schools in which a classical training might be obtained than did the planting colonies that boasted a mere handful of preparatory schools endowed by private philanthropy. In the eighteenth century, when well-trained Presbyterian clergymen from Scotland and Ireland settled in the Southern and Middle Colonies, these regions came to enjoy much better opportunities for the pursuit of classical scholarship.

Since the colonial colleges, in the manner of the English and Scotch

universities, specified the admission requirements in the classical languages, the type of training provided in the preparatory schools or at the hand of private tutors was essentially the same everywhere. Masters were almost always themselves products of the Old World universities or the colonial colleges. The best of these teachers, such as Ezekiel Cheever of New Haven and Boston, the Reverend William Tennent of Pennsylvania, and Dr. David Caldwell of North Carolina, commanded a thorough knowledge of Latin and Greek. Their pupils, boys from seven to fourteen, were subjected to a rigorous training in Latin grammar, composition, and reading. In the better schools Latin was also used as a medium of communication. The present use of Latin in commencement exercises is a survival of the colonial view that the language of the Romans was the proper vehicle for academic communication. During the course of Latin studies boys read Juvenal, Corderius, Ovid, Vergil, Caesar, Cicero, and Horace. Greek grammar was also begun, and the higher classes dipped into Xenophon and Homer. In accordance with tradition and the prevailing belief in mental discipline through drill, the emphasis was put primarily on an acquisition of the languages themselves. But the products of the best Latin grammar schools enjoyed no mean acquaintance with some of the greatest masterpieces of classical literature.

The colleges, in contrast to the Latin grammar schools, admitted into the curriculum a number of studies other than the ancient languages, particularly logic, mathematics, and metaphysics. But the classics dominated the four-year course of study in all nine of the colonial colleges. The curriculum included Cicero, Terence, Ovid, Sallust, Vergil, Horace, and Martial, and not infrequently Livy and Tacitus among Roman writers; among those of Greece, Homer, Demosthenes, Aristotle, Hesiod, and Theocritus supplemented the New Testament. The private libraries of college students indicate that it was not uncommon for undergraduates also to read Euripides, Sophocles, and other writers. There is ample evidence that while the classics were regarded as indispensable tools in the study of divinity, they were also cherished for their humanistic value. Samuel Eliot Morison has shown that at seventeenth-century Harvard the undergraduates were manifestly appreciative of the literary and esthetic qualities of the great masterpieces of the ancient world. In the eighteenth century, when so much emphasis was put on elegance of style, the humanistic and literary value of the classics received even greater attention.

It is true that the eighteenth century also saw a tendency to give somewhat less emphasis to the classics in the curriculum of both secondary schools and institutions of higher learning. Many of the disciples of the Enlightenment desired to have them largely replaced by modern languages and the natural and social sciences. Yet in spite of this, and notwithstanding the impatience of many in the rising middle class with the emphasis on the classics in the secondary schools, Latin and Greek maintained their dominant position. Franklin, himself the leading spirit in the movement to give the utilitarian studies a larger place in the Academy of Philadelphia, observed in 1773 that "it has been of late too much the mode to slight the learning of the ancients." Nor did the academies that began to replace or supplement the Latin grammar schools in the late colonial era subordinate Latin and Greek to nonclassical studies. On the eve of the Revolution a group of tutors and undergraduates at Yale demanded that more attention be given to English letters, but the classics continued to dominate the curriculum. Inventories of books and lists of holdings in libraries bear witness to their continued vogue. Thus in spite of growing criticisms the classics held their own in institutions of learning.

That many men grounded in the great books of the Greeks and Romans continued after college to read and to draw inspiration from them in their everyday lives is clear from the wealth of classical allusions in oratory, in polite letters, and even in journalism. The argument has been made that the classics broadened the mental horizons of the men who led the Revolution and instilled in their hearts the Greek concept of honor and the Roman ideal of virtue. In point of fact, both conservatives and radicals drew support for their views from the classics. The distrust of human nature and the traditionalism in much classical literature no doubt strengthened men of a conservative and skeptical temper. On the other hand, liberals with rationalistic leanings no doubt derived support from the classical ideal that reason should control emotion and from the ancients' concept of natural law. During the discussions that preceded the Revolution and in the struggle itself, Aristotle and other classical authorities were cited on the superiority of the law of God and nature to that of human enactment. John Dickinson of Pennsylvania appealed to the *Antigone* as proof of the danger involved in violating the immutable law of nature. Demosthenes, Thucydides, Polybius, Plutarch, Cicero, and Tacitus were invoked to justify colonial resistance, and classical writers were quoted in support of the republican ideal.

Contributions to Classical Scholarship

The eighteenth century was witnessing in Europe the publication of new and improved texts of most of the ancient writers, a series of superior lexicons and grammars, and a number of notable translations, which contributed not only to an understanding of the Greek and Latin classics themselves but to the modern tongues as well. Americans participated little in this development, but they were not altogether inactive. Even against the odds of the first terrible years in Jamestown, George Sandys labored there on his poetical translation of Ovid's *Metamorphoses* (London, 1626), a translation praised by both Dryden and Pope. Although not actually published until 1709, Ezekiel Cheever's *Accidence, A Short Introduction to the Latin Tongue*, was in reality a product of the seventeenth century. This manual, remarkable for its simplicity, comprehensiveness, and exactness, reached its twentieth edition in 1785. While in part based on existing English manuals, Cheever's *Accidence* contained much that was derived from his own greatness as a teacher, a greatness that led Cotton Mather to write

> Do but name Cheever, and the Echo straight
> Upon that Name, Good Latin, will repeat.

Preoccupied though the American press was with the publication of sermons, almanacs, broadsides, and official documents, it also paid its respects to the classics. In 1729 a translation of the *Morals* of Epictetus issued from a Philadelphia press. With the appearance in Philadelphia of James Logan's translations of Dionysius Cato's *Moral Distichs* (1735) and Cicero's *De Senectute* (1744) with notes of explanation, it was clear that American classical scholarship could be productive as well as thorough. When, in 1760, James Otis of Boston printed his *Rudiments of Latin Prosody*, it became apparent that no single colony was monopolizing the publication of classical studies.

Nor was American interest in Hebrew, Chaldee, and Syriac entirely lacking. Regarded as the parents of all western tongues, these ancient Oriental languages were valued as a philological tool. But it was principally as a key to the Old Testament that they were so greatly respected not only in Puritan New England but wherever a learned clergy was regarded as indispensable to Christian worship. Judah Monis, a Chris-

tianized Jew, set a high standard of scholarship in the field of Hebraic studies at Harvard. His successor, Stephen Sewall, prepared a Hebrew grammar. Sewall's example was followed by other Hebraists, especially by the erudite president of King's College, Dr. Samuel Johnson, and by the Reverend Dr. Kunze of the University of Pennsylvania, who announced that his grammar was based upon an "improved plan." Although interest in Hebrew waned in the colleges during the later colonial period, the rich scholarship that Ezra Stiles, subsequently president of Yale, possessed in this field testified to the high standards that were still maintained. The proficiency that an exceptional scholar trained in the late colonial period might achieve in Arabic is illustrated by the correspondence the Reverend William Bentley of maritime Salem conducted with Arabic chiefs in their own tongue, and by the references in Bentley's diary, one of the great documents in the intellectual history of late eighteenth-century America.

The Reception of Modern Literature

On the eve of the Revolution the private and quasi-public libraries of the American colonies included not only the writings of the ancient poets, historians, orators, and philosophers, but virtually all the works in Italian, French, and English of the leading figures of the Renaissance and succeeding centuries. Many of these urbane products of the Renaissance period had come from the libraries of seventeenth-century planters and clergymen, who had brought or imported them along with books on agriculture, mineralogy, medicine, law, theology, and piety. Planters favored Castiglione's *The Book of the Courtier* and comparable books in French and English, particularly *The Compleat Gentleman*, *The English Gentleman*, *The Gentleman's Calling*, and the like. But, as the studies of Louis B. Wright show, seventeenth-century planters also owned the works of Erasmus, Montaigne, Sir Thomas More, Bacon, Machiavelli, Guicciardini, Bodin, Hobbes, Descartes, Locke, Grotius, Butler, Burton, and many another known today only to specialists but highly regarded in that century.

Despite fires and other mishaps, many books from the seventeenth-century libraries of New England parsons were still in existence on the eve of the Revolution to testify to the broad interests of the erudite lead-

existing canons of historical scholarship. Such books were read in the various colonies.

But the developing pattern of colonial culture envisioned a bright future as well as a glorious past. Many shared Jonathan Edwards' conviction that Providence had singled America out as "the glorious renovator of the world." Although John Adams, writing in 1765, did not have in mind exactly the same kind of renovation, his words bear quoting. "I always consider," he wrote, "the settlement of America with reverence and wonder, as the opening of a grand scheme and design in Providence for the illumination and the emancipation of the slavish part of mankind all over the earth." In 1730 when Philadelphia was still a small town a local enthusiast predicted that

> Europe shall mourn her ancient fame declined
> And Philadelphia be the Athens of Mankind.

Others noted the deviation of American English from the mother tongue. Some pointed to the greater diffusion of knowledge in America, and others to the pronounced mechanical ingenuity of the people, as tokens of an emerging and different American culture. Expansiveness, self-sufficiency, and visions of "imperial grandeur" likewise marked the growing colonial self-consciousness, but the dream of a great American culture had, of course, to remain almost wholly in the realm of aspiration until social conditions permitted more specialization among those most interested in the life of the mind.

973.3
C97G

4 Diffusion of the Arts and Sciences

G.4731 /122 S4

All intended for divinity should be taught Latin and Greek; for physic the Latin, Greek and French; for law the Latin and French; merchants, the French, German and Spanish; and though all should not be compelled to learn Latin, Greek, or the modern foreign languages, yet none that have an ardent desire to learn them should be refused.

12254

—BENJAMIN FRANKLIN, 1749

Hypotheses may be of use to put us upon further enquiry, and a more critical examination, but are never to be received, any further than they are supported by proper evidence.

—SAMUEL WILLIAMS, 1785

20/

Physical distance did not break the intellectual ties between the New World and the Old. The American colonists brought with them from Europe a vast store of polite learning and a rapidly developing body of scientific knowledge. Throughout the colonial period Americans worked to preserve this inheritance. The practical demands of life in America and the separation from European centers of learning made it extremely difficult for any thinker to do more than merely transmit literature and science. But in spite of adverse conditions, a number of Americans did make original contributions to the development of their intellectual

heritage. Above all, colonial scholars and scientists made it possible for Americans to participate in the vigorous intellectual life of seventeenth- and eighteenth-century Europe.

The mass of the colonial population was only slightly touched, if at all, by the body of polite learning and scientific interests which developed in the colonies and which was a precious part of the legacy to the new nation. In a sense, to be sure, Christianity had assimilated much classical learning, and ordinary men and women did hear frequent allusions to the ancient writers in the learned sermons of some of their clergy. Here and there among the lowly an indentured teacher-servant was well versed in the classics. In rare instances an ambition to master natural science led the son of an artisan to study Latin; Thomas Godfrey, a Pennsylvania glazier, learned the language in order to read Newton's *Principia*. But on the whole the plain people had little use for Latin, Greek, and Hebrew, or indeed for the classics of the Renaissance literature. The idea that even the common people might derive esthetic satisfactions and mental stimulus from the classics was still practically unheard of. To the people themselves such studies doubtless seemed a useless luxury. Only as the offspring of humble folk sought entrance into the professions or the world of culture and social status did knowledge of the classics and of modern polite learning become essential.

The Transmission of the Ancient Classics

The classics of Greece and Rome might well have been entirely neglected in the busy New World had they not ministered to many needs. In the first place they served the requirements of professional interests. Law and medicine both assumed a familiarity with Latin. The Catholic, Anglican, Lutheran, and Calvinistic faiths all set much store on a clergy that could read Scriptures in the original Hebrew and Greek and had some acquaintance with the vast theological literature in the Latin tongue. If the Christian faith was to be perpetuated in the New World, provision had to be made in schools and colleges for the training of youth in the ancient classics.

That educated Americans in the colonial period enjoyed a firsthand knowledge of classical literature was also the result of the medieval conception that associated command of Latin with status and of the

Renaissance ideal that associated gentility with classical learning. Yet the classics were never regarded merely as a superficial badge of the gentleman. The ancient languages, valued as the repositories of a timeless wisdom and truth, had trained great leaders in the past, and it was assumed that they still had the power to do so in a later day. More than that, the cultured class believed that the truth and wisdom in classical literature were bound to solace the human spirit.

The merchant or planter who regarded himself and was regarded by others as a gentleman thus possessed a knowledge of the classics and saw to it that his sons learned their Latin and Greek at an early age. However much he was occupied with interests allied to his business or occupation, he was likely to maintain a genuine interest in the classics. It is probably true that many a planter who as a lad had learned his Latin and Greek from a family tutor or from the neighboring parson failed to make much personal use of the beautifully bound classical tomes in his library. But classical knowledge was by no means rare among planters, even if most of them were less assiduous in reading the classics than the second William Byrd, whose library included 394 volumes of the ancient classics. In polite conversation in the drawing room, in private letters, and in political orations classical allusions were frequent. Nor was it deemed odd when Richard Lee of Virginia had inscribed in Latin on his tombstone the words: "He was very skillful in the Greek and Latin languages. . . ."

Local parsons and private tutors in the homes of the well-to-do aided in transmitting classical learning to succeeding generations of favored youth, but the task was largely shouldered by the schools and colleges. Thanks to the Puritan zeal for learning and the fact that New England settlement followed the township organization of closely settled communities, Latin grammar schools were established by legislation and in part supported from the public funds of the towns themselves. Thus almost from the start New England had more schools in which a classical training might be obtained than did the planting colonies that boasted a mere handful of preparatory schools endowed by private philanthropy. In the eighteenth century, when well-trained Presbyterian clergymen from Scotland and Ireland settled in the Southern and Middle Colonies, these regions came to enjoy much better opportunities for the pursuit of classical scholarship.

Since the colonial colleges, in the manner of the English and Scotch

universities, specified the admission requirements in the classical languages, the type of training provided in the preparatory schools or at the hand of private tutors was essentially the same everywhere. Masters were almost always themselves products of the Old World universities or the colonial colleges. The best of these teachers, such as Ezekiel Cheever of New Haven and Boston, the Reverend William Tennent of Pennsylvania, and Dr. David Caldwell of North Carolina, commanded a thorough knowledge of Latin and Greek. Their pupils, boys from seven to fourteen, were subjected to a rigorous training in Latin grammar, composition, and reading. In the better schools Latin was also used as a medium of communication. The present use of Latin in commencement exercises is a survival of the colonial view that the language of the Romans was the proper vehicle for academic communication. During the course of Latin studies boys read Juvenal, Corderius, Ovid, Vergil, Caesar, Cicero, and Horace. Greek grammar was also begun, and the higher classes dipped into Xenophon and Homer. In accordance with tradition and the prevailing belief in mental discipline through drill, the emphasis was put primarily on an acquisition of the languages themselves. But the products of the best Latin grammar schools enjoyed no mean acquaintance with some of the greatest masterpieces of classical literature.

The colleges, in contrast to the Latin grammar schools, admitted into the curriculum a number of studies other than the ancient languages, particularly logic, mathematics, and metaphysics. But the classics dominated the four-year course of study in all nine of the colonial colleges. The curriculum included Cicero, Terence, Ovid, Sallust, Vergil, Horace, and Martial, and not infrequently Livy and Tacitus among Roman writers; among those of Greece, Homer, Demosthenes, Aristotle, Hesiod, and Theocritus supplemented the New Testament. The private libraries of college students indicate that it was not uncommon for undergraduates also to read Euripides, Sophocles, and other writers. There is ample evidence that while the classics were regarded as indispensable tools in the study of divinity, they were also cherished for their humanistic value. Samuel Eliot Morison has shown that at seventeenth-century Harvard the undergraduates were manifestly appreciative of the literary and esthetic qualities of the great masterpieces of the ancient world. In the eighteenth century, when so much emphasis was put on elegance of style, the humanistic and literary value of the classics received even greater attention.

It is true that the eighteenth century also saw a tendency to give somewhat less emphasis to the classics in the curriculum of both secondary schools and institutions of higher learning. Many of the disciples of the Enlightenment desired to have them largely replaced by modern languages and the natural and social sciences. Yet in spite of this, and notwithstanding the impatience of many in the rising middle class with the emphasis on the classics in the secondary schools, Latin and Greek maintained their dominant position. Franklin, himself the leading spirit in the movement to give the utilitarian studies a larger place in the Academy of Philadelphia, observed in 1773 that "it has been of late too much the mode to slight the learning of the ancients." Nor did the academies that began to replace or supplement the Latin grammar schools in the late colonial era subordinate Latin and Greek to nonclassical studies. On the eve of the Revolution a group of tutors and undergraduates at Yale demanded that more attention be given to English letters, but the classics continued to dominate the curriculum. Inventories of books and lists of holdings in libraries bear witness to their continued vogue. Thus in spite of growing criticisms the classics held their own in institutions of learning.

That many men grounded in the great books of the Greeks and Romans continued after college to read and to draw inspiration from them in their everyday lives is clear from the wealth of classical allusions in oratory, in polite letters, and even in journalism. The argument has been made that the classics broadened the mental horizons of the men who led the Revolution and instilled in their hearts the Greek concept of honor and the Roman ideal of virtue. In point of fact, both conservatives and radicals drew support for their views from the classics. The distrust of human nature and the traditionalism in much classical literature no doubt strengthened men of a conservative and skeptical temper. On the other hand, liberals with rationalistic leanings no doubt derived support from the classical ideal that reason should control emotion and from the ancients' concept of natural law. During the discussions that preceded the Revolution and in the struggle itself, Aristotle and other classical authorities were cited on the superiority of the law of God and nature to that of human enactment. John Dickinson of Pennsylvania appealed to the *Antigone* as proof of the danger involved in violating the immutable law of nature. Demosthenes, Thucydides, Polybius, Plutarch, Cicero, and Tacitus were invoked to justify colonial resistance, and classical writers were quoted in support of the republican ideal.

Contributions to Classical Scholarship

The eighteenth century was witnessing in Europe the publication of new and improved texts of most of the ancient writers, a series of superior lexicons and grammars, and a number of notable translations, which contributed not only to an understanding of the Greek and Latin classics themselves but to the modern tongues as well. Americans participated little in this development, but they were not altogether inactive. Even against the odds of the first terrible years in Jamestown, George Sandys labored there on his poetical translation of Ovid's *Metamorphoses* (London, 1626), a translation praised by both Dryden and Pope. Although not actually published until 1709, Ezekiel Cheever's *Accidence, A Short Introduction to the Latin Tongue*, was in reality a product of the seventeenth century. This manual, remarkable for its simplicity, comprehensiveness, and exactness, reached its twentieth edition in 1785. While in part based on existing English manuals, Cheever's *Accidence* contained much that was derived from his own greatness as a teacher, a greatness that led Cotton Mather to write

> Do but name Cheever, and the Echo straight
> Upon that Name, Good Latin, will repeat.

Preoccupied though the American press was with the publication of sermons, almanacs, broadsides, and official documents, it also paid its respects to the classics. In 1729 a translation of the *Morals* of Epictetus issued from a Philadelphia press. With the appearance in Philadelphia of James Logan's translations of Dionysius Cato's *Moral Distichs* (1735) and Cicero's *De Senectute* (1744) with notes of explanation, it was clear that American classical scholarship could be productive as well as thorough. When, in 1760, James Otis of Boston printed his *Rudiments of Latin Prosody*, it became apparent that no single colony was monopolizing the publication of classical studies.

Nor was American interest in Hebrew, Chaldee, and Syriac entirely lacking. Regarded as the parents of all western tongues, these ancient Oriental languages were valued as a philological tool. But it was principally as a key to the Old Testament that they were so greatly respected not only in Puritan New England but wherever a learned clergy was regarded as indispensable to Christian worship. Judah Monis, a Chris-

tianized Jew, set a high standard of scholarship in the field of Hebraic studies at Harvard. His successor, Stephen Sewall, prepared a Hebrew grammar. Sewall's example was followed by other Hebraists, especially by the erudite president of King's College, Dr. Samuel Johnson, and by the Reverend Dr. Kunze of the University of Pennsylvania, who announced that his grammar was based upon an "improved plan." Although interest in Hebrew waned in the colleges during the later colonial period, the rich scholarship that Ezra Stiles, subsequently president of Yale, possessed in this field testified to the high standards that were still maintained. The proficiency that an exceptional scholar trained in the late colonial period might achieve in Arabic is illustrated by the correspondence the Reverend William Bentley of maritime Salem conducted with Arabic chiefs in their own tongue, and by the references in Bentley's diary, one of the great documents in the intellectual history of late eighteenth-century America.

The Reception of Modern Literature

On the eve of the Revolution the private and quasi-public libraries of the American colonies included not only the writings of the ancient poets, historians, orators, and philosophers, but virtually all the works in Italian, French, and English of the leading figures of the Renaissance and succeeding centuries. Many of these urbane products of the Renaissance period had come from the libraries of seventeenth-century planters and clergymen, who had brought or imported them along with books on agriculture, mineralogy, medicine, law, theology, and piety. Planters favored Castiglione's *The Book of the Courtier* and comparable books in French and English, particularly *The Compleat Gentleman, The English Gentleman, The Gentleman's Calling,* and the like. But, as the studies of Louis B. Wright show, seventeenth-century planters also owned the works of Erasmus, Montaigne, Sir Thomas More, Bacon, Machiavelli, Guicciardini, Bodin, Hobbes, Descartes, Locke, Grotius, Butler, Burton, and many another known today only to specialists but highly regarded in that century.

Despite fires and other mishaps, many books from the seventeenth-century libraries of New England parsons were still in existence on the eve of the Revolution to testify to the broad interests of the erudite lead-

ers of the Puritan church. For these men read not only ponderous Latin tomes of theologians, Catholic and Protestant, but most of the writers included in the libraries of Virginia planters. In addition, New England libraries gave space to such poets as Herbert, Donne, and Milton; and at least some Harvard students were familiar with the "Venus and Adonis" of Shakespeare, the worldly verse of Herrick, the richly imaginative and urbane poetry of Spenser, and the Renaissance *Arcadia* of Sidney.

As the eighteenth century advanced planters, merchants, lawyers, physicians, clergymen, and even rising mechanics continued to import from abroad books by the leading writers of the time. To cite an example, on the eve of the Revolution the Philadelphia Library Association possessed not only the ancient and modern classics and works on science and practical affairs, but such contemporary writers as Fielding, Steele, Richardson, and Thomson. On the shelves of other libraries in the City of Brotherly Love were the leading contemporary writings as well as rare volumes representing the secular culture of earlier centuries in England and on the Continent. Philadelphia publishers brought out reprints of Defoe, Goldsmith, Gray, Locke, Pope, Samuel Johnson, Blackstone, Lord Kames, Robertson, Sterne, and Young, among others. But only an analysis of the reception that was accorded the Enlightenment in America can reveal the full richness of colonial acquaintance with eighteenth-century secular thought.

The Colonial Interest in Natural Science

The colonial legacy of classical scholarship cannot be easily overemphasized, but the legacy of natural science was from some points of view even more significant. Scientific inquiry not only accumulated a body of reasonably accurate knowledge of the natural world. It also diminished the authority of superstition, of classical tradition, and of religion itself. When the Republic was founded the great majority of the people, including many learned men, doubtless still cherished traditional superstitions and supernatural beliefs, but these were far less general than they had been at the end of the seventeenth century. In view of the small number of persons concerned with scientific inquiry and the obstacles confronting them, and considering the preoccupation of most of these men with other concerns as well, their achievements seem truly remarkable.

It has already been noted that occasional planters, farmers, and merchants engaged in scientific pursuits along with their other activities, or in other ways supported them. The interest in mathematics, astronomy, navigation, map making, and surveying sprang partly from the fact that these studies had practical value for men engaged in commerce, industry, and land promotion. John Winthrop, Jr., the seventeenth-century industrial promoter and governor of Connecticut, pursued his studies in astronomy, botany, chemistry, and metallurgy largely in the hope of achieving economic independence for himself and New England through the establishment of mines and industries. The interest of Philadelphia merchants in northern maritime routes led to their support of a project, premature to be sure, for arctic exploration. Only the scarcity of capital, it seems, prevented prospective entrepreneurs from acting on the suggestion of a Pennsylvania scientist for a geological survey.

In response to the stimulus of agricultural reformers in England, planters and farmers often engaged in scientific observation and experiment. But they were also influenced to do so by the exhaustion of their soil and by a desire to discover new or improved varieties of staples and stocks. The experiments of John Winthrop, II, with Indian corn, Jared Eliot's studies of husbandry, John Clayton's botanical observations, William Byrd's exploration of the economic and curative value of Virginia's plants, and Eliza Pinckney's experiments with indigo and rice are illustrative of the utilitarian motive of much scientific inquiry. So is the work of the Virginia planter, William Fitzhugh, who studied mineralogy in the hope of discovering precious metals on his estate. To emphasize this is not to deny that in some instances, notably in the case of John Bartram, the Quaker farmer of Pennsylvania, sheer love of nature itself or genuine scientific curiosity was a stronger motive than any utilitarian consideration.

Artisans with an unusual flair for mechanical manipulation also contributed to the advance of science. Thus navigation profited from the invention of the quadrant, to which the Philadelphia glazier Thomas Godfrey seems to have as good a claim as the Englishman Hadley for whom it was named. David Rittenhouse, self-taught astronomer, began his scientific work as a clock maker; and Amos Whittemore, subsequent inventor of a textile machine, was trained as a gunsmith. The greatest of colonial scientists, Benjamin Franklin, came from the artisan class and pursued the printing trade for much of his life.

The professions made the major contribution to the development of

natural history. Lawyers such as Paul Dudley of Massachusetts; clergymen such as the Mathers, Benjamin Colman, Thomas Prince, and Samuel Williams; physicians such as William Douglass of Boston, Cadwallader Colden of New York, John Mitchell of Virginia, and Alexander Garden of South Carolina are representative examples. These men, for whom scientific inquiry was an avocation, were motivated by a variety of considerations. With some the pursuit of science was a hobby, an expression of an unusually strong curiosity about the flora, fauna, and other phenomena of a strange new world. Some of them doubtless also set store on the prestige to be won by contributing papers to the Royal Society in London and corresponding with the great naturalists in the Old World, who were generous in their recognition of the contributions of American scientific workers. Physicians hoped to obtain effective cures from some of the native herbs in their neighborhoods. Some clergymen, like the Mathers, hoped to demonstrate through their observations of natural phenomena the reality of the supernatural world of spirits. Others believed that the study of nature might enable them to understand rationally some of God's mysteries and to demonstrate His hand in every phenomenon and occurrence in the natural world. Thus the Reverend Samuel Lee, an important figure in the Royal Society, did much after his migration to New England in 1686 to familiarize the local clergy with the idea that the new science magnified God's glory. In the eighteenth century this view came to be increasingly accepted.

Only a handful of men devoted themselves solely to science and derived their livelihood from it. Perhaps Isaac Greenwood of Boston was the first colonist to support himself by teaching natural science. His successor at Harvard, John Winthrop, who taught natural philosophy from 1738 until his death in 1779, was, after Franklin, colonial America's most distinguished scientist. William Small, a professor at William and Mary in the later colonial period, also made science his main concern, and in other colleges scholars gave at least part of their talent and energy to that discipline. Surveying and instrument making, applications of scientific knowledge, enabled Rittenhouse to pursue his investigations. John Bartram supported himself in part by selling seeds and plants to other gardeners and naturalists.

Material support for scientific activity in the colonial period was scanty and for the most part unorganized; in general, American naturalists depended on their own resources. They found a vehicle for the

publication of their work in the transactions of the Royal Society. Occasionally a well-to-do English friend of science contributed funds for the support of scientific investigations in the colonies. The action of the crown in appointing John Bartram royal botanist and allocating to him a small annual stipend was exceptional. The provincial legislature of Massachusetts helped finance the first astronomical expedition undertaken by Professor John Winthrop in 1761, when he observed in Nova Scotia the transit of Venus across the sun, and the Pennsylvania assembly contributed to the construction of telescopes and observatories for the study of the transit of Venus in 1769. Greatest of all boons was the establishment of the American Philosophical Society, which aided in the astronomical observations in 1769, promoted facilities for cooperative investigations on other occasions, and provided an outlet for publication.

The chief institutional support for colonial science came from the colleges. Instruction in the sciences, especially in the Copernican astronomy and in mathematics, was well established before the end of the seventeenth century. At Harvard Thomas Brattle observed and computed lunar eclipses and Halley's comet (1680). The data he thus assembled, together with his precise observations of the variations of the magnetic needle, were utilized by Newton in his *Principia.* Such recruits from the mother country as Charles Morton, who joined the Harvard staff in 1692, and especially Isaac Greenwood, did much to lessen the vogue of Aristotelian authoritarianism in college science.

Other colleges gradually assembled sufficient apparatus to give students some acquaintance with the experimental method of studying astronomy, physics, and chemistry. In his *General Idea of the College of Mirania* (1753) Provost William Smith of the College of Pennsylvania visioned the triumph of scientific knowledge over error, superstition, and the physical obstacles imposed by the wilderness. The first instruction in non-Aristotelian botany given in an American college was that provided at the Philadelphia institution over which he presided. In 1768 Adam Kuhn, a student of Linnaeus, began his lectures in botany. The following year Dr. Benjamin Rush became, at the same institution, the first American professor of chemistry. At King's College special attention was also given to the study of natural phenomena.

On the popular level the magazines and especially the almanacs contributed to the diffusion of scientific knowledge. *The American Magazine* (1757–1758) found space for original problems in mathematics and

for scientific papers. Horticulture and mechanics also received attention in the short-lived colonial magazines. The almanac, it is true, frequently confirmed astrological lore by encouraging farmers to think of the planets as the words of life, death, growth, and decay, and to plant their crops according to the phases of the moon. So marked, indeed, was the impact of tradition that it was possible for the Reverend Dr. Samuel Deane, respected and moderate pastor of the First Church in Portland, to advance, as late as 1790, the theory that the moon put a larger amount of spirit into fruit when the heavenly bodies exerted their greatest attraction. Still it is also important to remember that in the hands of enlightened compilers the almanac was a scientific educator of importance. The first colonial account of the Copernican system appeared in an almanac for 1659 published at Cambridge by a young Harvard graduate, Zechariah Bridgen. In the words of Theodore Hornberger, Franklin's *Poor Richard* in 1753 "began an account of modern astronomy, which ran for two years and amounted practically to a popular textbook on that subject." In New England Nathaniel Ames also popularized in his famous almanac the Copernican and Newtonian theories of the universe.

Nor should it be forgotten that many clergymen familiarized their flocks with current scientific theories. Increase Mather in 1683 organized the first scientific society to effect "Improvements in Philosophy and Additions to the Stores of Natural History." With his son, Cotton, he also supported, against the opposition of some of Boston's leading physicians, the new movement for inoculation against smallpox. Benjamin Colman and Professor John Winthrop of Harvard not only popularized Newtonian theories but, as their writings on earthquakes, droughts, and rains reveal, were also well informed in both natural history and natural philosophy.

Although such clergymen promoted the spread of the newer scientific theories of the universe and of natural phenomena, many of their colleagues clung to the cruder supernaturalism. Notwithstanding the naturalistic explanations of earthquakes advanced by Professor Winthrop in 1755 and 1759, educated clergymen as well as untutored laymen were quite willing, when darkness descended at midday on May 19, 1790, to attribute it to supernatural agencies. The prevailing distress over God's anger suggested that a naturalistic conception of the heavens had made less headway among the semieducated than might have been expected in view of the fact that Calvinism with its doctrine of special interpositions of the Deity had long been on the wane.

Methods, Assumptions, and Theories in Colonial Science

In looking at the growing body of scientific knowledge accumulated during the colonial period one is struck by many features that differentiate it from science today. What we think of as science was then divided into two fields: natural philosophy, which included physics, chemistry, and mathematics; and natural history, comprising geology, botany, and zoology. But there was so little specialization that most investigators were as much at home in natural philosophy as in natural history. Dr. John Mitchell of Virginia won a reputation in physics, medicine, scientific agriculture, and cartography, and also found time to assemble more than a thousand specimens of native plants. James Logan, a Philadelphia merchant and agent for the Penn family, stole time from his labors to study mathematics, botany, and optics.

Cadwallader Colden was a physician, an anthropoligist, a botanist, a physicist, and a mathematician. Professor Winthrop worked in the fields of mathematics, geography, physics, electricity, and astronomy. Franklin concerned himself with mathematics, mechanics, physics, geology, and oceanography. The greatest degree of specialization was achieved by John Bartram and his son William, whose activities were largely confined to botany.

Any discussion of scientific method in the colonial period must take as its point of departure the status of mathematical knowledge, for the study of astronomy and physics especially was closely dependent on mathematics. Although the relatively simple economy of the seventeenth century did not generally require widespread use of anything except the most elementary arithmetic, a few scholars, chief of whom was Thomas Brattle of Harvard, displayed in their calculations for the almanacs accurate knowledge of certain branches of higher mathematics. Such mathematics as Harvard taught was largely subordinated to astronomy; in considerable measure this remained true of all the colleges in the eighteenth century.

As commerce, navigation, and surveying enlisted ever stronger interest in the later colonial period, knowledge of mathematics became more widespread. Bishop Berkeley's presence in New England and the evolution of the American Philosophical Society also contributed to the growing interest in this subject. In 1728, when Isaac Greenwood became Hollis professor of mathematics and natural science at Harvard, the

course of study included, besides arithmetic, a subject almost entirely neglected in the preparatory schools, the elements of algebra, with the principles of algebraic conic sections, plain and spherical trigonometry, the doctrine of spheres, the use of globes, and the principles of mensuration. Calculus, the Newtonian system of "fluxions," was slower to gain currency. James Logan mastered Newton's *Principia*, as did his friends Cadwallader Colden and Thomas Godfrey. But Calculus was not taught in the colleges until 1746, after John Winthrop succeeded Isaac Greenwood as Hollis professor at Harvard. At about the same time, President Clap of Yale was invigorating the study of mathematics. With the foundation of the College of Philadelphia mathematics was, at least in theory, given an honored place; but in general there was no very significant advance in the mathematical curriculum until the last two decades of the century.

The character of mathematics instruction is revealed by the textbooks of the period. In 1729 Professor Greenwood produced an "arithmetic," the first textbook by an American wholly devoted to the subject. Although it marked an improvement on existing English textbooks, it reached only a limited audience. The most popular textbook throughout most of the century was that of the Englishman, Thomas Dilworth. His *Schoolmaster's Assistant* excluded demonstration and reasoning and gave much attention to difficult and ambiguous rules and definitions based on the principle of memorization. Nevertheless, much of the instruction must have been able. Jefferson, for example, acquired at William and Mary not only a taste for, but considerable skill in, mathematics, which he put to good use in his formula for constructing the moldboard of a plow on mathematical principles.

Mathematics enabled colonial scientists to prepare almanacs and especially after the introduction of Copernican and Newtonian science at Harvard in the second half of the seventeenth century, to make astronomical calculations of practical value. Skill in mathematics and a firm grasp of Newtonian physics enabled Professor Winthrop of Harvard to put to excellent account his observations of the transits of Venus over the sun. His studies of these transits from various vantage points enabled him to determine with surprising exactness the number of degrees of longitude between Cambridge and London and to demonstrate the accuracy of Newton's laws of motion.

Mathematical knowledge figured no less in the astronomical work of

David Rittenhouse, who was likewise a disciple of Newton. Self-taught though he was, handicapped by ill health and straitened means, suspected by many orthodox Quakers, Rittenhouse nonetheless developed sufficient competency in both mathematics and astronomy to contribute to these fields work that was significant if not as original as Winthrop's paper on comets (1759). In his calculations of the transit of Venus in 1769 Rittenhouse corrected an error made by the more learned Winthrop and, according to good authority, observed certain features that escaped all other observers. His part in fixing the disputed boundaries of his state also testified to his skill in mathematics.

But what most endeared Rittenhouse to his contemporaries was his construction in 1767 of the orrery. This machine, which simulated the motions of the planets and their satellites and lunar and solar eclipses at any point in time backward or forward for 5000 years, provided spectators with a remarkable picture of the solar system and the precision of its movements. Jefferson with pardonable pride and exaggeration wrote of him in his *Notes on the State of Virginia:* "He has not indeed made a world; but he has by imitation approached nearer its Maker than any man who has lived from the creation to this day."[1] His improvements in the telescope constituted another practical service to astronomy for which Rittenhouse was much applauded.

Not only did mathematics assist scientists in constructing precision instruments; it enabled them to manipulate the "philosophical apparatus" in the "cabinets" that gradually took shape in college halls. Instructors resorted to mathematics to test and demonstrate hypotheses in the fields of gravitation, electricity, heat, and pneumatics. This was all the more important in view of the fact that some of the current textbooks, such as Benjamin Martin's *Philosophical Grammar,* lent sanction to many views that were accepted on mere authority. Dr. Alexander Garden of Charleston admired the use to which Linnaeus put mathematics in his studies of botany and zoology, but the time had not yet come for its wide application in biology.

Colonial naturalists, largely concerned as they were with the collection and classification of specimens, made only occasional use of the microscope and of experimental techniques. Cotton Mather was impressed by the microscope's wondrous powers, and Edward Bromfield of Boston

[1] Thomas Jefferson, *Notes on the State of Virginia* (University of North Carolina Press, 1955), 64.

later used a powerful magnifying glass to study "the strong workings of the bowels of a louse." John Bartram also made use of microscopic observations "upon the male and female parts in vegetables." The Bartrams found time to experiment with hybridization, but most investigators of flora, fauna, and rocks confined their work largely to assiduous collecting and classification. This specimen gathering greatly extended knowledge of the animal and vegetable realms and enabled Gronovius, Linnaeus, and other European leaders in the field to work out their systematic classifications. The value of some of the studies of American naturalists was increased by the remarkably faithful drawings that accompanied them, the work of such talented craftsmen as Mark Catesby, an English visitor who studied southern plants, birds, fishes, shells, and serpents, and Jane Colden, the daughter of the lieutenant governor of New York.

Students of the medicinal properties of flora and fauna were sometimes handicapped by basic theological assumptions related to the ancient doctrine of correspondence. According to this theory, God had placed a "signature" on each substance so that, by reason of a symbolical correspondence between its outer appearance and a given condition or ailment, it acted as a cure. The Creator, it was believed, had made nothing in vain; hence the whole world was a great cosmic pharmacy to be explored and utilized.

Assuming in advance that God's purpose was revealed in every minute aspect of His handiwork, naturalists did not make their observations with entire objectivity. Thus Dr. John Mitchell, one of the most distinguished colonial naturalists of the eighteenth century, remarked, in describing the pouch of the Virginia opossum: "How often, then are we obliged, in discovering and prying into the works of nature, to acknowledge the Almighty has not only given being to, but has likewise provided for the well-being of this, as well as other creatures!"[2] The Biblical doctrine that man had been created in the image of God tended to set human kind apart from the animals, with the result that medicine was insufficiently grounded on animal pathology and physiology. Scientific classification based on the relationship of various created objects was also hampered by the conviction that God had created fixed species. What was more, the scholastic method of discussing scientific questions

[2] Herbert Thatcher, "Dr. Mitchell, M.D., F.R.S., of Virginia," in *Virginia Magazine of History and Biography*, XL (January, April, July, October, 1932), 345–346.

persisted. In 1769 a Harvard disputation on the question whether the reptiles of America originated from those preserved by Noah was decided in the affirmative.

Authoritarian and traditional barriers to scientific advance nevertheless did give way. Many a time-honored myth sanctioned by the authority of a distinguished name was dispelled by the shrewd observations of a people who had to adjust themselves to a new environment. Even the untutored pioneer, seeking his food in stream and forest, rejected the notion that migrating birds flew to the moon in winter. While a Philadelphia naturalist maintained as late as 1800 that swallows hibernated in mud and while ideas of fantastic animals persisted in some quarters, such concepts were exceptional among a people who had from necessity rubbed close elbows with nature.

Colonial scientists were generally more concerned with amplifying and supporting the theories of European scientists, Newton in natural philosophy and Linnaeus in natural history, than in advancing hypotheses of their own. For the most part American naturalists contented themselves with filling in the gaps which the strange phenomena in their own vicinity invited them to explore. In this they showed good judgment, for at best they were ill equipped to advance theoretical explanations or to make imposing syntheses of scientific knowledge.

Cadwallader Colden, the versatile lieutenant governor of New York, was an exception. He was interested in the larger issues of synthesis and made bold to grapple with the stiffest problems implicit in Cartesianism and Newtonianism. Trained at the University of Edinburgh, Colden corresponded with the leading scientists and thinkers in England and on the Continent. He differed with Bishop Berkeley's analysis of Newton's theories and ventured to criticize and make practical applications of the theories of fluxions and gravitation. In his *Principles of Action in Matter* (1751) he disavowed materialism. Nevertheless, he himself came close to taking a materialist position; what he did was to resolve matter into the mechanics of force by holding that the properties of things are merely their various modes of activity. In 1778 another physicist, Benjamin Thompson, provided experimental evidence in his work on heat in support of this theory of matter. But in taking an even more comprehensive position Colden made a pioneer contribution toward a mature phase of scientific materialism which deserves to be remembered.

Colden was not the only one to advance scientific hypotheses in

explanation of natural phenomena. The appearance of earthquakes in New England in 1727 and 1755 posed fundamental questions concerning the cause of this extraordinary phenomenon. While most of the clergy saw in them the hand of God, Paul Dudley, trained in law and honored by the Royal Society for his investigations in natural history, advanced the theory that the earthquake resulted from the motion of the earth's crust. But the first really scientific explanation of the earthquake was that advanced in 1759 by Professor Winthrop of Harvard. Using the inductive method, Winthrop concluded that the disturbance of the earth's crust seemed to be waves of motion which transmitted a pendulum-like movement to houses and barns. Applying computation to the phenomenon, he drew an analogy between musical vibrations and seismic motions. In 1785 Winthrop's pupil and successor, Samuel Williams, developed his teacher's seismic theories, maintaining that the earth's undulations resulted from a strong elastic vapor which moved along the under surface of the earth, producing fire in the bowels of the earth as it advanced. However crude these explanations now seem, they were at the time in accord with the most advanced scientific theories; and what is of greater significance, they were at least in part arrived at by empirical observations and mathematical calculations, and advanced with some degree of tentativeness. The fact that was most important was that earthquakes were accounted for by natural rather than by supernatural agencies.

Often standing on the verge of original work in the field of thermodynamics, Winthrop supplied Benjamin Franklin with aid in his studies of atmospheric electricity. It was of course Franklin's work in this field that established American science in the eyes of European contemporaries. Only slightly familiar with the emerging European literature on electricity, Franklin conducted a thorough analysis of the Leyden jar and in consequence revised the first general theory of electricity, that of Dufay. Franklin advanced the single-fluid theory of electricity and contributed the language ("plus" and "minus") for its description. His theory enabled him to make measurements, therein proving its superiority to the two-fluid theory, and to explain adequately the condenser and the phenomena of repulsion and attraction. A true scientist, Franklin devised various ways for testing his theory, one of which was the famous kite experiment. Unfamiliar, apparently, with the theories of certain French savants which identified electricity and lightning, in his identification Franklin depended on his own previous analyses of the

Leyden jar and on his own theory concerning the nature of electricity. The kite experiment, the date of which is somewhat obscure, confirmed his thesis that machine-made or frictional electricity was identical with atmospheric electricity. The significance of his experiment has been popularly overemphasized, but it did make his original contributions to electrical theory better known. His hypothesis and theories, advanced first in letters to an English correspondent and presented by him to the Royal Society, were published in 1751 as *Experiments and Observations on Electricity made at Philadelphia in America,* a book rightly regarded as one of the most important treatises in the history of man's knowledge of electricity. French scientists confirmed his findings, but Franklin's honor remains that of an original mind.

Because of the great popularity it achieved, Franklin's work had a double significance. It contributed to an explanation of the phenomenon of lightning, one of nature's wildest spectacles. But it also increased the respect of the popular mind for natural philosophy. Lightning, like earthquakes, comets, violent storms, and other awesome displays of nature, had always been a principal source of dread and speculation about the supernatural. Franklin helped tame the thunderbolt, and by doing so helped foster a more empirical and less fearful attitude toward the world. Franklin also discovered a way of controlling lightning. In hitting on the fact that "points have a property by which they can draw on as well as throw off the electrical fluid at a greater distance than blunt bodies can," and that atmospheric electricity could be drawn from the skies through a wet string and passed off in visible sparks through a key, he took the easy next step to the invention of the lightning rod.

The invention of the lightning rod was only one illustration of Franklin's conviction that science should promote general well-being. His practical interest did not stop with experimentation and theory; he illustrated the relationship between science and its application to everyday life for the increase of comfort and well-being by inventing a stove that vastly improved the heating of houses, and by suggesting bifocal lenses, daylight saving, and air bathing. Out of a concern for sailing vessels on the high seas and for man's good in other situations, Franklin provided proof of the movement of cyclonic storms, constructed a pioneer map of the Gulf Stream, studied the behavior of oil in water, and investigated many other phenomena in natural history, chemistry, geology, mathematics, and physics.

While utilitarianism governed Franklin's conception of science—he

once apologized for spending time in a mathematical exercise which could have no useful bearing—it did not exclude a larger vision. To the criticism that the new experiments in balloon flights were utterly useless Franklin rejoined by asking. "Of what use are new born babies?" With unusual honesty he admitted his own lack of patience with the indispensable process of verification and willingly heard all he could against his favorite theories. Thus he achieved in remarkable degree the true scientist's ideal in preferring to have truth prevail, even if over his most cherished hypotheses. And his groping realization of the relative rather than the absolutistic character of truth was in itself of great potential value to scientific theory.

Franklin, then, with Colden and Winthrop, demonstrated that American scientists could on occasion concern themselves with larger theories and general principles. Yet his interest in the utilization of scientific knowledge for man's good was characteristic of the humane inventor, the utilitarian. In the field of mechanics the utilitarian motive which American soil nourished found many illustrations. In a pioneer country labor-saving expedients were particularly necessary; before the middle of the seventeenth century an important improvement in a sawmill was patented. German mechanics in Lancaster, Pennsylvania, perfected the "Kentucky rifle," an asset alike to the patriots in the Revolution and to pioneers in the wilderness. The names of at least two inventors should not be lost from the record of our intellectual history. Christopher Colles built the first steam engine in the colonies; and before the Revolution the principle of an improvement in flour milling was simmering in the mind of Oliver Evans, pioneer in many fields of invention.

The Status of Medical Knowledge

An equally utilitarian application of scientific knowledge was found in the practice of medicine. The effort to cure the sick also illustrates well the conflict between superstitious traditionalism and scientific procedure. Not only in America but in Europe itself the status of medical knowledge at the end of our colonial period seems primitive from the standpoint of today. That germs were the cause of many diseases was not yet suspected; and in the absence of clinical thermometers and stethescopes diagnosis was naturally very faulty. Anesthetics were not in

use, and many important agents in materia medica, such as ergot, iodine, morphia, and strychnine, were not yet in vogue. Almost all physicians were prone to use excessive drugs, both in quantity and in kind. Even worse in its effects on therapeutics was the doctrine of correspondence. The best physicians accepted, a priori, general theories of the cause of disease and then applied the specific that seemed logical. Thus bloodletting was carried to incredible lengths on the assumption that it was the proper means, with blistering and emetics, of relieving the system of "morbid acrimonies, and other matters in the blood."

In colonial America certain social and economic conditions still further handicapped the advance of professional medicine. Not until the second quarter of the eighteenth century did many young men go to Edinburgh, London, and other medical centers for their training; the great majority of the physicians on the eve of the Revolution were trained as apprentices to established practitioners. The fact that only in the larger towns could physicians devote their entire time to medicine, since in most communities the practitioner had to supplement his meager income by farming or some other vocation, put yet another check on professional development. Specialization was frowned upon; it made faltering headway even in the largest towns only after the mid-century. With population widely dispersed, with few and bad roads, with little ready cash in the pockets of great numbers of the common people, much reliance was put on self-treatment. George Fisher's *The American Instructor, to which is added The Poor Planter's Physician,* and John Wesley's *Primitive Physick, or An Easy and Natural Method of Curing Most Diseases,* are examples of popular books of home medicine.

Although trained physicians did not themselves continue generally to employ folk notions such as administering drugs according to the phases of the moon, and using manure for poulticing sores, spider webs for treating fever, and rattlesnake poison mixed with cheese for rheumatism, they had to contend against such practices. Matters were not helped by the fact that quacks abounded. The poverty of great numbers of people, together with their credulity, made them, then as now, easy prey to unscrupulous vendors of miraculous cure-alls.

In still other ways popular prejudice stood in the way of medical advance. Although autopsies were occasionally performed in the seventeenth century, religious prejudices against such practices made it almost impossible for physicians to use cadavers in teaching anatomy. Angry

crowds opposed such attempts, and Dr. William Shippen, who announced a course of lectures in 1762 in Philadelphia, found it necessary on one occasion to hide from an enraged citizenry. The generally held belief that epidemics were visitations of an angry God likewise halted empirical inquiries into the occasion of such catastrophes.

On the other hand the scientific attitude did make definite advance, especially after the first quarter of the eighteenth century. This followed partly from the fact that a larger number of young men received their training in European medical centers. The growth of rationalism in religious circles further facilitated the use of empirical methods and provided encouragement for concerted efforts to discover natural causes and natural remedies for diseases. The establishment of a hospital in Philadelphia in 1752, and of medical schools in the same city and in New York in the 1760s, was a milestone. Although the great body of practitioners remained unorganized, three medical associations had been established before the outbreak of the Revolution, and legislative provisions for the regulation and improvement of practice were making progress in the larger towns.

With increasing frequency individual physicians conducted experiments which heralded a new spirit. Thus, Dr. Lining of Charleston investigated the spread of "noninfectious epidemic diseases" and in a series of pioneer experiments in human metabolism studied the relation of the weight of food to bodily exertions and fluctuations in perspiration. Yellow fever was the subject of interest and scientific observation; the studies of Dr. John Mitchell of Virginia were to play a subsequent role of importance in Philadelphia at the end of the century. Cadwallader Colden's *Treatise on Wounds and Fevers* and his extensive contributions to materia medica helped to establish his European reputation. In 1736 Dr. William Douglass of Boston published the first adequate clinical description of scarlet fever, a significant contribution. But in many respects the most memorable pioneer and hero in the annals of eighteenth-century American medicine was Dr. Zabdiel Boylston of Boston. In opposition to the European-trained leaders of the profession, Boylston experimented with inoculation against smallpox and was ultimately rewarded by the Royal Society. The time was still far in the future when American medicine would enjoy a reputation for originality as well as competency, but the record was not altogether blank.

In accepting, modifying, and extending the venerable classical tradi-

tion and the rising body of scientific knowledge colonial Americans once more showed that in spite of their isolation at least their intellectual leaders belonged to the western community of knowledge. While the classics and polite literature, which were regarded as indispensable to the training of a learned clergy and the education of gentlemen, continued as in Europe to set the social classes apart, science promised to close somewhat the gulf between the learned few and the uncultivated many. Many clergymen welcomed science as an additional support for theology. But it was also welcomed because it was useful in helping colonists to conquer the wilderness, to advance their social status, and to achieve wealth and comfort.

The development of a body of scientific knowledge regarding the universe and the application of parts of this knowledge to the increase of man's worldly goods and the improvement of his physical health had other consequences. It tended to promote secularism and faith in the ability of human reason to find the truth and to use it to improve the human lot. At the same time that man's faith in supernaturalism, whether in matters of cosmology or of therapeutics, was diminished, his conception of human nature, of social relations, and of the Deity became more rational, that is, he viewed such matters as more subject to investigation in terms of reason and nature. But this is another story.

5 The Rise of the Enlightenment

> *The Prime Immunity in Mans State, is that he is most properly the Subject of the Law of Nature. . . . The Second Great Immunity of Man is an Original Liberty Instampt upon his Rational Nature. He that intrudes upon this Liberty, Violates the Law of Nature. . . . The Third Capital Immunity belonging to Mans Nature, is an equality amongst Men. . . .*
>
> —JOHN WISE, 1717

Among the legacies transmitted to the new nation the pattern of thought known as the Enlightenment was one of the most important. In Kant's celebrated words, the Enlightenment was "the liberation of man from his self-caused state of minority." It was a protest against traditional reliance on authority in religious and secular life. It asserted man's ability to understand the universe without supernatural revelation and without the authoritative guidance of earthly superiors. It assumed the original worth and dignity of all men, and challenged the comfortable to alleviate the harsh lot of the poverty-stricken and ignorant masses and the victims of irrational and inhumane social conditions.

The apostles of the Enlightenment were under the spell of the Newtonian conception of a harmonious, law-governed universe, a rational

system ruled by the mathematical law of cause and effect. The assumption was that man, as a part of this rational universe, could understand it through his own reason; it was no longer necessary to view the universe as a mystery only partially explained by divine revelation. Religious doctrines must consequently be tested by reason and accepted only if found to be in accord with the great rational design of the universe as comprehended by man's mind. To the true son of the Enlightenment the only religion validated by mathematics, logic, and scientific observation and experiment was deism—a philosophy conceiving of the Deity as an architect who had planned and set in motion a harmonious and self-regulating universe.

According to the philosophy of the Enlightenment, human nature was not predetermined by an arbitrary deity; it was the natural result of the environment that molded it. Man possessed no innate ideas; his mind was the product of his experiences, good and bad. Total depravity and predestination were mere religious fictions invented by the priests to reinforce their control over the credulous. If human nature contained large elements of evil, these were simply the result of natural causes—irrational conditions and an authoritative type of training. Man had the power to improve his own nature by improving his environment through science and education so it would accord with reason and natural law. Thus the Enlightenment conceived of human nature in optimistic terms.

Political, social, and economic theories no longer rested on supernatural revelation, but on natural law. The ancient theory of contract under natural law was invoked to explain the procedure by which man had forged society from the original state of nature in which individuals existed like so many atoms. Thus the state and society were not organic but mechanistic; they were merely an artificial entity. The only ultimate reality was the individual, whose natural rights to life, liberty, property, and the pursuit of happiness could not rightfully be alienated by the state. If the state did violate the natural law of the universe by alienating these rights, then in the interest of reason and justice men could and should resort to revolution. Since man could in any case test institutions by reason and reform them according to its light, the world was infinitely perfectible. The heavenly city was here on this earth, and man was to achieve it through his own rational powers. Belief in these powers constituted, as Carl Becker has maintained, a new religious faith.

These basic ideas of the Enlightenment were deeply rooted in the

growth of secularism and the science that had been transforming western Europe since the late Middle Ages and especially since the Renaissance. The great popularity of the Enlightenment in the late seventeenth and eighteenth centuries can be only partly explained, however, by the scientific progress of the period and the consequent delimitation of the area in which supernaturalism flourished.

The ideas of the Enlightenment answered new needs resulting from new ways of life. The rising middle classes needed ideas quite different from those that had served the priestly and feudal classes. Natural science was a more useful instrument in guiding them in their mercantile enterprise than the revealed word. The pursuit of commerce called for religious toleration, the civil liberties, respect for property, and security of property from arbitrary taxation. The middle classes needed individual freedom for enterprise. They needed to be released from the hampering economic doctrines that a religious and feudal society had imposed against taking interest and "undue" profits. They required not an organic, regulatory state, but one invested with mere police powers. An environment allowing for personal freedom, so necessary to commerce and trade, came to be regarded as the natural environment, the one in accord with the great harmonious mathematical laws of the universe itself. A philosophy of free will rather than of predestination, one which assumed that reason and natural law enabled man to control his environment and mold his destiny, seemed plausible to men with such requirements. Optimism and faith in progress stood high in the scale of values of the middle classes. Thus the doctrines of the Enlightenment provided these classes, especially the trading folk, with ideas congenial to their interests.

It might appear that colonial society was an uncongenial soil for the growth of the Enlightenment. Colonial thought was dominated by religion, and though trade prospered, agriculture with its long feudal past formed the primary basis of the economy. But certain considerations offset these facts. Agriculture was not, as in Europe, glutted with feudal remains. It was largely an agriculture of the small independent farmer or of the planter who as an exporter of staple crops was something of a business man or at least in close touch with merchants. Then, too, the religion that dominated colonial life contained, as we shall see, elements favorable to an emphasis on reason and on a humanity operative in this world. Thus not only among the leaders of the trading class but among the clergy and the landed proprietors were to be found ardent disciples of the new faith.

rce and trade and the urban life, which grew rapidly along the
acoast throughout the eighteenth century, provided fertile soil
owth of ideas characteristic of the Enlightenment. The fact
peoples with conflicting religious ideas were living together
break down religious authoritarianism; some degree of tolera-
practical necessity if order and prosperity were to be realized.
ples had come to America to be free from authority—in many
the authority of a particular kind of religion or from that of
entry or a restrictive trade guild system. They had come here
a fuller life as individuals, and in the belief that America had
hich human effort might shape. Colonial conditions—above
istence of free or cheap lands and other natural resources—
it they were not entirely wrong.
edominantly agricultural and religious character of colonial
d thought and its remoteness from European centers of intel-
e explain in part why the Enlightenment developed later in
han in Europe. But conditions favorable to it did exist, and
elop. Its rise and growth provided the most exciting intellec-
ience of the men and women who looked with increasing favor
eat truths" which were congenial to their physical and spiritual

m in Religion

scholarship has emphasized the place that Puritanism made
ercise of reason in the solution of both daily problems and
l mysteries. Roger Williams, it will be recalled, was a true
of the Enlightenment in his opposition to external compul-
atters of faith and belief—in his insistence that all men, and
y priestly scholars, were capable of understanding truth. And
illiams' imperishable pleas for religious freedom were not the
ents in Puritan thought that foreshadowed the rationalism
lightenment. Even the most orthodox Puritans believed that
of Scripture was to be upheld by means of "right reason." In
prominence to the humanistic logic of the great French Prot-
inker, Petrus Ramus, New England Puritans modified the
n and scholastic logic and the metaphysics of Calvin. Many
th Ramus the conviction that the inherently rational universe